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ABSTRACT

This handbook is a roadmap for action research facilitators to help groups as they work through the research process. It offers quotations, handouts, strategies, resources, and insights from actual experiences. The sections of the handbook follow the action research cycle, focusing on: "What is Action Research?"; "What is the Action Research Process?"; "Why Action Research?"; "Developing a Question"; "Activities and Strategies"; "Data"; "Writing About Action Research"; "Sample Agendas"; "Getting Started in a School District"; "Facilitation Skills"; and "Resources." For each section, title pages describe the tools and processes included; clipboards describe the activities that facilitators can use to help action researchers as they move through the process; resource pages provide background information and support material; and balloons include comments that reflect what facilitators have learned about the process and working with groups. (Contains 28 references.) (SM)

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Action Research

facilitator's handbook

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NATIONAL STAFF DEVELOPMENT COUNCIL

Action Research

facilitator's handbook

by Cathy Caro-Bruce

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About the Author

Cathy Caro-Bruce is a Staff and Organization Development Specialist for the Madison Metropolitan School District. In this role, she works with principals and school staffs on school improvement planning initiatives. Since 1990, she has coordinated Classroom Action Research for the district. Each year, approximately eighty teachers participate in eight different groups which are facilitated by sixteen teacher leaders.

She has co-authored a chapter in *Educational Action Research: Becoming Practically Critical*, (Noffke and Stevenson, Teachers College Press, 1995) about implementing action research in a school district. In *A New Vision for Staff Development*, (Sparks and Hirsh, NSDC/ASCD, 1997) she describes the action research efforts of the district.

Along with Ken Zeichner from the University of Wisconsin-Madison, Cathy recently completed a two-year grant awarded to the district and the University of Wisconsin-Madison from the Spencer and MacArthur Foundations to look at the impact of action research on teachers' thinking, their practice, and student learning.

While her staff development work encompasses other areas, she would be hard pressed to describe any activity that is more rewarding.

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As with any project that takes on epic proportions and turns into life work, it becomes apparent that many people contribute in both small and large ways to moving it toward completion. Here goes...

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Introduction

"This is great! I really want to start action research in my school, but how do I do it?" Comments such as this were the impetus for me to figure out how to transfer my enthusiasm and commitment for action research to others. This handbook for facilitators is the result.

Action research seems to have taken the country by storm. As with many popular initiatives and movements, people are hungry for a "how to" book so they can implement action research in their districts. They want a simple and easy way to achieve powerful results. But action research in its simplicity is tremendously complex, and there are no cookbooks. It is simple because it is all about talking together: revealing our values, sharing our concerns and questions, and discovering new ideas and possibilities. The complexity lies in creating the environment and processes so that the talking and exploration will result in a quality experience. This is not easy work, nor should it be, and it will not happen without careful thought and planning.

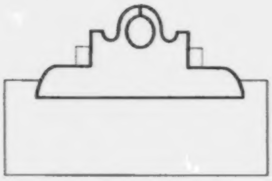
This handbook is a roadmap for action research facilitators to help groups as they wind their way over easy and rough roads, circling back to the beginning to find themselves on yet another stage of the journey. We have learned that a big part of the fun of action research is in the creation and design of processes that successfully assist participants move along their action research path. This resource is a wonderful collection of quotations, handouts, strategies, resources, and useful insights from our experience. The sections of the handbook follow the action research cycle, but it is not a recipe book for a linear process. It is not intended that you follow each activity step by step or include every single activity in your planning. It is suggested that you become familiar with the entire handbook so that you know what resources are available to you at any point in the process. The handbook is meant not to limit you in any way, but to open up new ways of thinking for you. In that spirit, take what is here and make it your own.

Many people have contributed to this effort. Although ten years of action research groups have resulted in a lot of learning, in some ways we feel as though we are still at the beginning. This is where you come in! Action research work is always unfinished. If you have something to contribute--an idea, a strategy, a great quote--please pass it on to me. I love hearing stories about action research, and I will do my best to share your thinking with others. All of us can learn from each other's experiences.

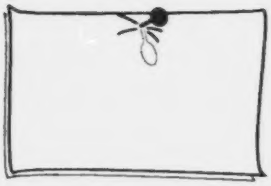
One other thought before you begin: just go for it. Get started...try it...jump in. Put action research in place. You will be amazed and delighted at what emerges. Start small if you must, and learn along with others, but take the risk. The rewards will be worth it.

Framework of the Handbook

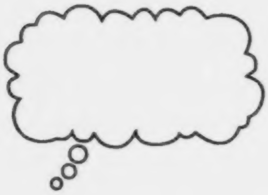
Title Pages describe the tools and processes included in each section of the handbook.



Clipboards describe the activities that facilitators can use to assist action researchers as they move through the process. Clipboard activities are included in the Table of Contents.



Resource Pages provide background information and support material. These pages may also be used as overhead transparencies and/or handouts.



Balloons include comments that reflect what facilitators have learned about the process and working with groups.

What is Action Research?

■ Action research is significantly different from traditional research in several ways. Use this section to help distinguish between what action research is and is not and clarify key assumptions on which action research is grounded.

What is Action Research?

- Action Research is a process in which participants examine their own educational practice, systematically and carefully, using the techniques of research.

It is based on the following assumptions:

> teachers and principals work best on problems they have identified for themselves;

> teachers and principals become more effective when encouraged to examine and assess their own work and then consider ways of working differently;

> teachers and principals need time and space away from their daily routine to think deeply about their work; and

> teachers and principals can provide help, support, and encouragement by working collaboratively.

Reprinted with permission. Watts, H. (1985). "When teachers are researchers, teaching improves," *Journal of Staff Development*, 6 (2).

What Action Research is NOT...

1. It is not the usual things teachers do when they think about their teaching.

Action Research is systematic and involves collecting evidence on which to base rigorous reflection.

2. It is not only problem-solving.

Action research involves problem-posing, not just problem-solving. It does not start from a view of problems as pathologies. It is motivated by a quest to improve and understand the world by changing it and learning how to improve it from the effects of the changes made.

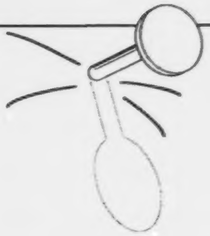
3. It is not research on other people.

Action research is research by particular people on their own work to help them improve what they do, including how they work with and for others. Action research does not treat people as objects. It treats people as autonomous, responsible agents who participate actively in making their own histories by knowing what they are doing.

4. It is not the scientific method applied to teaching.

Action research is not just about hypothesis-testing or using data to come to conclusions. It is concerned with changing situations, not just interpreting them. It takes the researcher into view. Action research is a systematically evolving process of changing both the researcher and the situations in which he or she works.

Reprinted with permission. Henry, C. & Kemmis, S. (1985). "A point-by-point guide to action research for teachers." *The Australian Administrator*, (6) 4.



Action research is the process through which teachers collaborate in evaluating their practice jointly; raise awareness of their personal theory; articulate a shared conception of values; try out new strategies to render the values expressed in their practice more consistent with the educational values they espouse; record their work in a form which is readily available to and understandable by other teachers; and thus develop a shared theory of teaching by researching practice.

John Elliott

Reprinted with permission.
Elliott, J. (1991). *Action research for educational change*. Philadelphia: Open University Press/Milton Keynes.

What do Teacher Researchers do?

Teacher researchers...

- develop research questions based on their own curiosity about teaching and learning in their classrooms;
- examine their underlying assumptions about teaching and learning;
- collect data systematically from and with their students;
- share and discuss their data and research methodology with fellow teacher researchers;
- analyze and interpret their data with the support of their colleagues;
- write about their research;
- share their findings with students, colleagues, and members of the educational community;
- discuss with colleagues the relationships among practice, theory, and research; and
- assume responsibility for their own professional growth.

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Action Research: Three Approaches

I. Individual Teacher Research

- > Focus of the research is on changes in a single classroom.
- > Support for the individual varies.
- > Primary audience of the research is the teacher.
- > Impact of the research may or may not reach beyond the classroom.

II. Collaborative Action Research

- > Focus can be a single classroom or several classrooms (a grade level, team or department).
- > Support is usually built in (university, educational service agency, district, etc.).
- > Audience is broader, depending on who sponsors the research.
- > Impact of the research may be broader and potential for partnerships beyond the experience is greater.

III. Schoolwide Action Research

- > Focus is on a school issue, problem or area of collective interest.
- > Support comes from a school commitment and leadership, as well as from external agencies or groups.
- > Audience is the entire school community.
- > Great potential for the research to impact school restructuring and change.

Based on the work of Calhoun, E. (1993). "Action research: Three approaches." *Educational Leadership*, 51 (2), 62-65. Used with permission.

Action research is a powerful tool for simultaneously improving the practice and the health of an organization.

Emily Calhoun

Reprinted with permission. Calhoun, E. (1993). "Action research: Three approaches."
Educational Leadership, 51 (2), 62-65.

DIFFERENCES BETWEEN TRADITIONAL AND ACTION RESEARCH

This activity allows the group to construct a working definition of action research which they can re-visit over time.

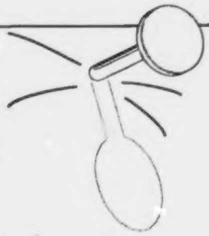
> Ask the group, "when you hear the word 'research', what words and phrases come to mind?"

> List the words and phrases on a flipchart.

> Look at the list of "Descriptors of Action Research" on the next page.

> List similarities and differences on a flipchart. Discuss the feelings that emerge.

> Discuss other thoughts or conclusions.



Descriptors of Action Research

practical
everyday life
action-oriented
evolving
intuitive
flexible
narrative
own words
reflective process
purposeful
exploratory
interpretive
interactive

holistic
qualitative
collaborative
heuristic
discovery
descriptive
accessible
open-ended
complex
relevant
practitioner's point of view

ACTION RESEARCH ARTICLE JIGSAW

Much has been written about action research over the years. To help the group better understand what action research is, put together a collection of articles (see following pages for examples) and use a jigsaw process to share the learnings.

- Prepare multiple copies of 3-5 articles. Number of articles needed depends on group size.
- Form small groups. Give each person in the group a different article.
- Ask each person to read his or her article.
- Put people in groups with others who have read the same article. Ask them to select 3-5 key ideas/highlights from the article to share with their original group.
- Send people back to their original groups and have each person share the 3-5 key ideas. You might ask the group to represent their collective learnings with a drawing (see example following articles), song, metaphor, or a skit.
- Ask the participants how they are thinking differently about action research based on their new knowledge.

Articles that Can be Used for Jigsaw Activity

There are many articles available to help people understand more about action research. Listed below are some of those that were used with our groups.

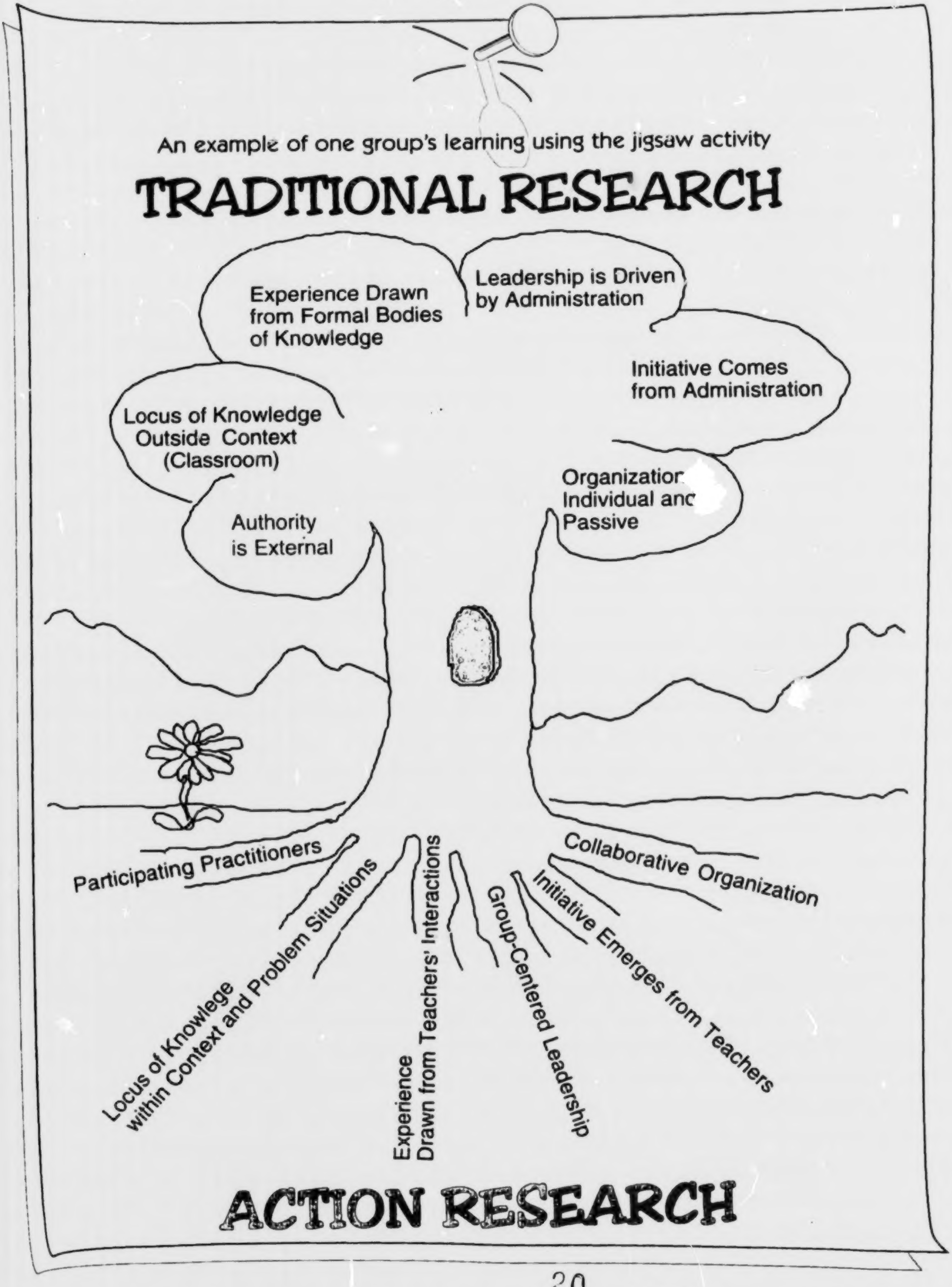
Calhoun, E. (1993). "Action research: Three approaches." *Educational Leadership*, 51 (2), 62-65

Joyce, B. & Calhoun, E. (1995). "School renewal: An inquiry, not a formula." *Educational Leadership*, 52 (7), 51-55.

Lee, G.V. & Barnett, B.G. (1994). "Using reflective questioning to promote collaborative dialogue." *Journal of Staff Development*, 13 (1), 18-21.

McKay, J.A. (1992). "Professional development through action research." *Journal of Staff Development*, 13 (1), 18-21.

Miller, D.M. & Pine, G.J. (1990). "Advancing professional inquiry for educational improvement through action research." *Journal of Staff Development*, 11 (3), 56-61.


An example of one group's learning using the jigsaw activity
TRADITIONAL RESEARCH
Experience Drawn from Formal Bodies of Knowledge
Leadership is Driven by Administration
Initiative Comes from Administration
Locus of Knowledge Outside Context (Classroom)
Organization Individual and Passive
Authority is External
Participating Practitioners
Locus of Knowlege within Context and Problem Situations
Experience Drawn from Teachers' Interactions
Group-Centered Leadership
Initiative Emerges from Teachers
Collaborative Organization
ACTION RESEARCH

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Action Research: Three Approaches

Emily F. Calhoun

Differing in purpose, emphasis, and results, three types of action research allow educators to investigate areas of concern and meet the challenges within their classrooms and schools.

Anita Simmons records her 1st graders' responses to questions about simple fractions after using different displays and activities with them. She wants to determine which presentations are more effective than others.

Four middle school teachers—Elitrus and Paula from Rogers School, and Angie and Robert from Wilshire School—experiment with mnemonic key words in their science classes. They want to help students better retain and understand key science concepts and terms. They consult frequently with a member of the county intermediate agency and a professor from the nearby state university, both of whom are experimenting with the same method. .

The faculty at Thomas High School wants to increase student achievement. To obtain this goal, all faculty members add a new instructional strategy, such as the inquiry approach or inductive thinking strategies. They observe and record student responses to the change in instruction and discuss their findings. A leadership team meets bimonthly for technical assistance with the Consortium for Action Research, a regional group sponsored by the state department of education.

These three scenarios all describe action research. The first, carried out by a single teacher, is *individual teacher research.* The second, conducted by a volunteer group working with a university professor and staff development officer, is *collaborative action research.* The third, involving an entire faculty in conjunction with a school consortium, is *schoolwide action research.* True to earlier concepts of action research, the work centers on the practitioner; this is research done by teachers and administrators.

Action research was here before, in the 1940s and '50s, developed by Kurt Lewin and his colleagues as a collective problem-solving cycle for improving organizations (Lewin 1947, 1948; Corey 1953). The term *action research* captured the notion of disciplined inquiry (research) in the context of focused efforts to improve the quality of an organization and its performance (action). Today, action research remains a powerful tool for simultaneously improving the practice and the health of an organization.

> Action research is a powerful tool for simultaneously improving the practice and the health of an organization.

Benefits of Action Research

For teachers, principals, and district office personnel, action research promises progress in professionalization. The process allows them to experience problem solving and to model it for their students. They carefully collect data to diagnose problems, search for solutions, take action on promising possibilities, and monitor whether and how well the action worked. The cycle can repeat itself many times, focusing on the same problem or on another. The process can help develop a professional problem-solving ethos (Corey 1953, Joyce 1991, Schaefer 1967, Sirotnik 1987).

Action research can revitalize the entire learning community, as well as aid teachers in changing or reflecting on their classroom practices. It can support initiatives by individual teachers, schools, schools working with communities, and districts. In addition, more than one type of action research can be used in a given setting at the same time.

Selecting one type of action research over another has important implications for the school renewal process. From my work with action research as a consultant, coordinator, and researcher, I have gathered data on action research from 76 schools in three states. These data indicate that besides the obvious distinctions about how many people are involved, the three types of action research vary in their emphasis on achieving equity for students, improving the organization as a problem-solving unit, and developing collegial relations among teachers. Further, each type has

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Used with permission. *Educational Leadership*, October 1993.

Teachers participate in schoolwide action research.

Jon Lore Harper, Glynn County Schools

different long-term objectives, purposes, and results. *The key to selection is the purpose of the inquiry.*

Faculties and individuals choosing the type of action research that will best serve their needs should consider five elements: (1) purpose and process; (2) support provided by outside agencies such as universities, intermediate service agencies (for example, the Regional Service Educational Agency in Georgia), consortiums, and central office personnel; (3) the kind of data utilized; (4) the audience for the research; and (5) the expected side effects.

Individual Teacher Research

Purpose and process. Individual teacher research usually focuses on changes in a single classroom. A teacher defines an area or problem of interest in classroom management, instructional strategies or materials, or students' cognitive or social behavior. The teacher then seeks solutions to the problem. Students may or may not be directly involved in helping to generate alternatives and determining effects. If parents are involved, they are usually consulted as sources of information.

Outside support. Individual teacher research is frequently inspired by university courses, a descriptive article about action research, or an encouraging supervisor, principal, staff development coordinator, or professor (see Oja and Smulyan 1989, Rogers et al. 1990, and Strickland 1988). Because support by administrators varies by site and by their personal interest in the area being explored, external agencies often provide teachers with the needed support. Sometimes the external agent acts as a mentor to the teacher.

Data utilized. Some individual teacher researchers use quantitative data, developing measures and forming and testing hypotheses. They experiment with different actions fashioned to address the problem, study and record the effects of those actions, and keep, modify, or discard ways of acting based on their findings. Some teachers use qualitative data in similar processes. A few teachers, operating more like phenomenologists, prefer to let the hypotheses emerge from the process (Carr and Kemmis 1983).

Audience. The primary audience for the results of individual teacher research is the teacher conducting the research. If students have participated directly in the investigation, then they, too, form part of the primary audience. Whether the results are shared with secondary audiences through staff development presentations, professional conferences, school district newsletters, or articles in professional journals is at the discretion of the individual teacher.

Side effects. The effects of individual teacher research may or may not reach outside the classroom. Several teachers within the same school may be conducting action research on a similar topic, but they may or may not discuss their experiences and results. The amount of sharing depends on the collegiality of the individuals. Where such sharing occurs, collegiality at the school may be enhanced.

Collaborative Action Research

Purpose and process. Depending on the numbers of teachers involved, collaborative action research can focus on problems and changes in a single classroom or on a problem occurring in several classrooms. A research team might even take on a districtwide problem, but focus its inquiry on classrooms. The research team may include as few as two persons, or it may include several teachers and administrators working with staff from a university or other external agency. The team follows the same investigative and reflective cycle as the individual teacher-researcher.

Outside support. Teachers and administrators often work with university staff, intermediate service agency personnel, or members of an educational consortium when doing collaborative action research (Holly 1991, Sagor 1991, Whitford et al. 1987). Collaborative action research frequently involves school-university partnerships and mutual support from each participating organization (see Allen et al. 1988). The relationship is similar to the interactive research and development framework of the late 1970s (Tikunoff and Mergendoller 1983).

Teachers engaged in collaborative action research generally volunteer to participate or seek out affiliation with local university personnel who have expertise in particular curriculum areas. Professors, district office personnel, or principals may recruit teachers to explore an area in need of improvement or to field-test promising approaches. Recruiting teachers for field-testing is especially prevalent when agency personnel initiate the study.

Data utilized. As in individual teacher research, the data utilized by collaborative action researchers may be qualitative or quantitative. Data are more likely to be quantitative if the central office or intermediate service agency defines the study area. The larger collaborative research team might also use a greater variety of methods than the individual teacher-researcher and divide the labor, focusing on different dimensions of a problem. For example, in a study of disciplinary action, one member might survey parents, a second member might interview teachers, and a third might count referrals and organize them by cause and consequences.

Audience. The members of the research team are the primary audience for results from collaborative action research. Depending on their involvement in formulating and shaping the investigation, students and parents may form part of the primary audience. If the school administration, the district office, or a university sponsored the research, then these groups also form part of the primary audience.

Collaborative action researchers appear to share results with secondary audiences more frequently than do individual teacher researchers and participants in schoolwide action research. This may result from the involvement of university personnel in the process, who, besides providing support to teachers, are exploring their own areas of professional interest. Because their university positions require them to generate and share knowledge, university personnel often have more time to write about the action research experience and more opportunities to present the results. This writing and presentation is often done in collaboration with one or more of the participating practitioners.

Schoolwide action research may feel messy and uneven, but this is to be expected when a diverse community is learning to apply a complex process.

Side effects. While the work between school or district practitioners and university personnel is collaborative and mutually beneficial, a major benefit to practitioners is the almost tutorial role university personnel play in helping them develop the tools of social science inquiry. Some groups stay together for several years, conducting several studies in areas of common interest, while their technical skills and expertise in inquiry continue to grow. Such collaboration also generally improves collegiality.

Schoolwide Action Research

Purpose and process. In schoolwide action research, a school faculty selects an area or problem of collective interest, then collects, organizes, and interprets on-site data. Data from other schools, districts, or the professional literature are funneled into the collective decision-making process of the faculty, who then determines the actions to be taken. The process is cyclic and can serve as a formative evaluation of the effects of the actions taken.

Schoolwide action research focuses on school improvement in three areas. First, it seeks to improve the organization as a problem-solving entity. With repeated cycles, it is hoped that faculty members will become better able to work together to identify and solve problems. Second, schoolwide research tries to improve equity for students. For example, if the faculty studies the writing process in order to offer better instructional opportunities for students, the intent is that *all* students benefit. Third, schoolwide action research tries to increase the breadth and content of the inquiry itself. Every classroom and teacher is involved in collective study and assessment. In addition, faculty members may involve students, parents, and even the general community in data collection and interpretation and in the selection of options for action.

A school executive council or leadership team composed of teachers and administrators often shares the responsibility for keeping the process moving. These leaders spur the collecting, organizing, and interpretation of the data, disseminate on-site data and applicable professional literature for collective analysis and study, and support the actions selected for implementation by the learning community.

Outside support. School leadership teams or district administrators often initiate schoolwide inquiry because of their affiliation with a consortium that promotes action research as a major school improvement strategy. Through exposure to consortiums such as the Center for Leadership in School Reform in Kentucky or the League of Professional Schools in Georgia, school leaders read about schoolwide inquiry, attend awareness sessions, or discuss it with peers who are using it. They then work to apply schoolwide inquiry in their home settings.

Data utilized. The data gathered from studying the school site and the effects of actions taken may be quantitative, qualitative, or both. The data collection can be as simple as counting types of writing elicited from students or as complex as a multi-year case study. Faculty members might divide the labor as in the case of collaborative action research. They might also reach out to other schools studying similar problems and trying the same or different solutions.

For greatest effect, the data should be collected regularly, and evaluation of actions taken should be formative. Relying on summative evaluations such as yearly norm-referenced tests will lessen the dynamism of the process. Standard tests, however, can be used to corroborate the results of the formative studies. In almost all cases, multiple assessment measures are needed (Calhoun 1992, Glickman 1990, Holly 1992).

Audience. The audience for the results of schoolwide action research includes all the primary participants, at least the total school faculty. The faculty may decide to expand this audience to include students, parents, the general community, and the school board.

Side effects. Collective action may be the most complex type of action research, requiring participation from all members of the faculty. This complexity, however, generates important side effects: the faculty learns to build collegiality and to manage the group process. Teachers reflect on aspects of curriculum and instruction they might not have if they had worked alone.

Schoolwide action research may feel messy and uneven, and conflict may arise during the first few cycles, but this is to be expected when a diverse community is learning to apply a complex process. Collecting schoolwide data on an instructional initiative requires trust and mental and physical collaboration. Marshalling the efforts of all both takes and provides energy. Sharing the results from individual classrooms requires patience and understanding toward self and others.

Collecting schoolwide data on an instructional initiative requires trust and mental and physical collaboration.

Reflecting on Action Research

In recent years many teachers and administrators have engaged in productive curricular and instructional improvement through each type of action research. Part of the promise inherent in the action research format is support of the current movement toward site-based decision making. In many cases, collaborative relationships have increased between school personnel and members of central district offices, intermediate agencies, and university personnel. Using schoolwide action research has increased the problem-solving capabilities of schools, and even districts.

As knowledge about the process accumulates and we explore action research, we will be better able to guide our school improvement efforts. Assuming that the trend toward action research continues and more and better studies about its effects are produced, we will be able to make more informed assessments of its influence on student opportunities to learn. These results should be positive, for action research has the potential to generate the energy and knowledge needed to support healthy learning communities. Our challenge as educators is to make this potential a reality. ■

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School Renewal: An Inquiry, Not a Formula

Bruce Joyce and Emily Calhoun

School renewal recreates the organization from within—through changes that support continuous examination and improvement of the education process at every level.

School improvement is moving away from highly targeted innovations intended to solve specific problems toward a fluid inquiry into how to make education better day to day. The intent is to make all schools learning communities for faculties as well as students—making use of the most powerful models of learning with both groups.

For many years and through many different reform movements, our schools have been hampered by structural characteristics that make innovation laborious: no time in the workday for collegial inquiry, no structures for democratic decision making, a shortage of information, and the absence of a pervasive staff development system. Essentially, we have tried to engage in school improvement with a series of Catch-22's designed into our organization.

> We need one another's ideas for stimulation, and we need one another's perspectives to enrich our own.

Often, when a problem area has been identified by a faculty—modernize the science curriculum, help at-risk students, or teach more students to read effectively—the usual solution has been to generate a special program staffed separately with new cadres of specialists. New curriculums are "put in place," with limited training or involvement by the teachers.

What is now envisioned is a quantum leap toward the creation of a setting where inquiry is normal and the conditions of the workplace support continuous, collegial inquiry. The vision is of a "school as a center of inquiry" (Schaefer 1967), where faculties continuously examine and improve teaching and learning, and where students study not only what they are learning in the curricular sense, but also their own capability as learners.

In this changed culture, school improvement plans are viewed as hypotheses to be tested, not panaceas. The process is school-based, involves the total faculty, builds community, serves to increase student learning through the study of instruction and curriculum, and seeks to provide a nurturant organization through collective study of the health of the school (Joyce et al. 1993).

How do faculties get started? We suggest that they explore promising changes and test them as hypotheses, with commitment following a study of the results.

Hypothesis 1

Restructuring job assignments and schedules to build in time for collective inquiry will increase school improvement activity. Some school improvement strategies assume that the schedule of the school will remain the same, but broad change requires time for all members of the organization to work and study together. Without this collective study time, we cannot move forward as a learning community.

Synergistic environments—those characterized by rigorous interchange among people—foster inquiry. Environments that separate people depress inquiry. Many of us have worked in schools that were and still are organized as a loose federation of little schools (classrooms), with minimal adult interchange built into the workplace. Some of us taught without really knowing our colleagues down the hall or even what our neighbors next door were doing.

In such a structure, it is nearly impossible to develop curriculum, create a nurturant social climate, collectively study students and their learning, and analyze the health of the organization. School improvement has been inherently frustrating because time to study collectively as a faculty has not been available. In essence, we need one another's ideas for stimulation, and we need one another's perspectives to enrich our own.

Case in point: Restructuring time. In the Pala Elementary and High School District, the students leave after lunch every Wednesday afternoon. From 1:30 until 4:00 p.m., the faculties meet to develop and tend the

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FIGURE 1

Grade 4 Scores on Expository Writing for Fall 1992 and Spring 1993

Dimensions

Period	Focus/ Organization	Support	Grammar/ Mechanics
Grade 4 Fall			
Mean	1.6	2.2	2.1
Standard Deviation	0.6	0.7	0.7
Grade 4 Spring			
Mean	2.8	3.2	3.0
Standard Deviation	0.9	1.0	1.0

After an elementary school faculty began a collective inquiry into the teaching of student writing, the quality of writing in the 4th grade improved noticeably.

Grade 6 Scores for Fall 1992

Spring scores for the 4th grade (above) surpassed those of grade 6:

Grade 6 Fall			
Mean	2.1	2.9	2.9
Standard Deviation	0.6	0.7	0.7

learning community. In this district, the assignment has changed from "Here's your classroom and the list of students assigned to you" to "Welcome to a learning community where we study teaching and learning as they occur." And *time* to do so is embedded into the work week. Will time for professional interchange result in better schools for the Pala District? We think so, and faculties there are testing the idea.

Hypothesis 2

Active democracy and collective inquiry create the structural conditions for school renewal. The traditional managerial structure for schools and districts has been a loose federation of classrooms somewhat coordinated by principals, their assistants, and a few central office personnel. State departments of education, on the periphery, often serve local districts and schools much like financial backers, with guidelines and standards for the use of public resources. Most state departments have virtually no structure other than curriculum standards for communicating their educational intents or for supporting implementation.

Thus, those closest to the student carry the educational system. What "managerial transformation" can be made right now to help the school community and its faculty? We suggest that each school form a democratic governing body (Glickman 1993). Rather than being a traditional parliamentary governing group, our Responsible Parties will lead all members of the community in studying the school, its students, and ways to continually make the school better. A small school might include all faculty members on the governing body. A larger school might elect representatives. And in both small and large schools, the community elects representatives. Decision-making and leadership roles are expanded. All faculty and elected representatives participate in major decisions, with administrators serving as executive secretaries of the governing body.

Case in point: A responsible democratic community. Rincon Elementary School has 18 teachers and 500 students. The Responsible Parties include all 18 teachers, 18 parents elected by the other parents, and four student-parent teams. At Rincon High School—which has 66 teachers and 1,600 students—16 teachers and 16 parents, along with four student-parent teams, make up the Responsible Parties team. In both cases, the Responsible Parties nurture the learning community, ensure the support of the democratic inquiry process at the individual and school level, and coordinate initiatives within the school.

At these two schools, inquiry is the process that unifies professionals and laypeople. Every practice is open for scrutiny rather than considered a permanent solution. If something isn't working for a child or a group of children, people acknowledge it and try something else, without blame or shame. The realization is that teaching is a never-ending process of trying to reach all the kids in the best ways that current vision permits.

Hypothesis 3

Studying the learning environment will increase inquiry into ways of helping students learn better. Inquiry involves collecting, analyzing, and reflecting on data. In an odd sense, our schools have been both information-rich and information-impoverished. That is, while much information-gathering goes on, schools have lacked the reflective, experimental qualities that make assessment of learning lead to the study of ways to improve it.

Serious inquiry often leads us beyond the information we are accustomed to using. For example, a few years ago we worked with a middle school where only 30 percent of the students earned promotion at the end of each school year. Year after year, teachers knew the students were failing. And yet, year after year, the students failed. Then, a staff development program interrupted the situation by bringing the faculty into the study of teaching. Students began to learn more, and within two years, 95 percent of them were earning promotion with the same curriculum and the same tests still in place.

What happened in this middle school? Faculty members, working as an organizational unit, began to study the learner and the learning environment. Data about student learning came to be used differently—as information sources to analyze as teachers inquired into how their students could become more powerful learners (Joyce et al. 1989).

Every school has large quantities of data available for collective inquiry (Calhoun 1994). Faculties may begin by using information such as grades and referrals, then collect new data, such as how often and how well students are comprehending and composing. But the inquiry doesn't necessarily stop here. At times, faculty members will want to collect data about students' feelings—for example, how students feel about their sense of independence and their developing concepts of themselves as effective human beings. These perceptual and attitudinal data can enrich a faculty's understanding of student behaviors and responses to the learning opportunities provided.

Case in point: Using site-based data. Let's move away from the example of a low-achieving middle school to look at some schools with a history of high achievement. Elementary faculties in the Ames (Iowa) Community School District (which ranks repeatedly in the top 5 percent of the nation's districts) inquired into the quality of student writing and into the teaching of writing. Within two years, student writing had improved several times beyond its predicted rate based on previous years' growth (Joyce et al. 1994).

Figure 1 reports results about the quality of expository writing, based on the scores of collected student writing samples. The faculties compared the results with district baseline outcomes derived from comparisons of fall and spring writing for 1991–92 and with average gains indicated by the National Assessment of Educational Progress for the nation as a whole (NAEP 1988, 1992). The top part of the figure compares the means for two periods—fall 1992 and spring 1993—for three dimensions of writing quality: Focus/Organization, Support, and Grammar/Mechanics. Altogether, 95 sets of samples, representing 95 students and approximately 20 percent of the district's 4th grade population, were compared. Effect sizes computed between fall and spring scores were: 2.2 for Focus; 1.5 for Support; and 1.4 for Grammar/Mechanics. All are several times the effect sizes of the national sample and of the baseline gains determined from the 1991–92 analyses.

The realization is that teaching is a never-ending process of trying to reach all the kids in the best ways that current vision permits.

To illustrate the magnitude of the difference, the district compared mean results for the spring 4th grade assessment to the fall 6th grade results (shown in the bottom part of fig. 1). District staff found that it was possible to increase gains per year to several times the average gain.

What made these gains possible? The district secured two hours every week for faculty members to study together. During 1992–93, teachers spent half this time studying the inductive model of teaching in reading and writing. In brief, the district focused collective attention on moving forward in a major curriculum area, studied what students were able to do as writers, provided staff development that helped staff members inquire into language arts and the development of powerful communication, and continuously studied staff implementation and student effects.

In schools with histories of low student achievement and high student achievement, then, the faculties found that their own attitudes and beliefs became part of the inquiry. In both settings, they had not really believed their students could learn so much more effectively. And neither did the parents. Collective efficacy increased as these faculties "proved" that their students could learn far more than they had been expected to learn.

Hypothesis 4

Connecting the faculty to the knowledge base on teaching and learning will generate more successful initiatives. Many faculties have attempted to improve their schools without easy access to the accumulated knowledge relevant to their needs. Much to the benefit of all parties concerned with school improvement, the study of teaching, curriculum, and technology now has a substantial knowledge base that can help faculties think about possible solutions to problems. (See Bloom 1984, Joyce et al. 1992, and Wang et al. 1993.)

This connection to the knowledge base of our profession and use of it for collective inquiry can expand the

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Serious inquiry often leads us beyond the information we are accustomed to using.

possibilities for effective action, as faculty members locate efforts and perspectives that they may not have been aware of. For example, as Responsible Parties seek ways of motivating students to learn, their inquiry may lead them to "motivational" programs. A broad look at the literature, however, will reveal that some teaching strategies and curricular approaches have very large motivational effects—something that might not be found in a search for motivational programs alone.

Case in point: Moving beyond what we know. The faculty and parents at Soquel Elementary School were working together to improve student writing from K–6th grade. Dismayed by the number of students in grades 3 through 6 who were performing poorly, they knew their students could do better. Working together, teachers and parents developed an action plan filled with exciting activities—for example, a Write-Night Sleep-in, visits from renowned children's authors, a family night writing workshop, and surveys of students' and parents' attitudes about writing. Meanwhile, members of the Responsible Parties were examining journals, videotapes, and textbooks to locate promising resources for schoolwide study and reflection.

When the students again produced writing samples, the quality had improved, but very little in relation to the amount of energy expended. As faculty members and parents reflected on the year's experiences, they reached an important conclusion: Although they had done much to celebrate writing, they had done nothing to change instruction or curriculum. As a result of this collective self-examination, the 1993–94 action plan emphasized three instructional strategies with a history of improving the quality of student writing: the inductive model of teaching, group language experience with an emphasis on modeling and metacognition processes, and the inquiry approach.

Hypothesis 5

Staff development, structured as an inquiry into curriculum and instruction, will provide synergy and result in initiatives that have greater student effects. Staff development must not be offered as "Here is stuff that has been researched, so use it!" Rather, it should be an invitation to new inquiries. Consequently, the content of staff development—curriculum and instruction—should be organized so that as new practices are identified and tried, the faculty can immediately and systematically study their effects. Models of teaching are not static practices to simply put in place; they are models of learning that launch further study of students and how they learn (Joyce and Showers 1995, Joyce et al. 1992, Wang et al. 1993).

Case in point: Teacher inquiry, alone and together. Earlier we shared student achievement data from the Ames Community School District. Now let's look at how teachers there felt about inquiring alone and together.

Ames provides strong, balanced support for initiatives generated by individual teachers (for example, Individual Growth Fund); by school faculties conducting action research (School-Based Action Research); and by the district as a unit (for example, Models of Teaching/Language Arts).

In the spring of 1993, a team of local teachers and administrators interviewed 64 teachers—a random sample drawn from the district's nine elementary schools—about their perceptions of the content of the three initiatives and their satisfaction from participating in them. For cross-initiative comparisons, the critical items were four questions: (1) Should Ames continue the initiative? (2) Would you recommend it to another district? (3) Did it have an effect on students? and (4) How do you feel about the program in general?

The majority of teachers favored continuing all three initiatives, but the largest percentage (61 of the 64 teachers) favored the district's Models of Teaching/Language Arts effort. What was surprising to district personnel was the similarity in the distribution of responses across the four parallel sets of questions.

For example, of the 64 teachers, 56 percent said they would recommend the Individual Growth Fund to another person, 78 percent would recommend School-Based Research to other districts, and 88 percent would recommend Models of Teaching/Language Arts to other districts.

Fifty-five percent of the 64 teachers said that the Individual Growth Fund had an effect on their students, 75 percent said that School-Based Research had positive effects, and 84 percent responded positively about the Models of Teaching/Language Arts initiative.

As for general feelings about the programs, 64 percent of the teachers felt "good" about the Individual Growth Fund, 80 percent felt good about School-Based Action Research, and 95 percent felt positive about Models of Teaching/Language Arts.

The 64 teachers also answered open-ended questions. In general, they described changes in students, in instructional strategies and materials, and in effects on themselves, including their morale. Overall, 26 teachers mentioned specific, positive changes for the Individual Growth Fund, 39 teachers did so for the School-Based Action Research, and 49 teachers, for the Models of Teaching/Language Arts initiative.

In Ames, initiatives at all three levels—individual, school, and district—were operating, and the district conducted an action research study to find out how each was doing. The findings that surprised many were: (1) initiatives generated at all three levels were well accepted, and (2) the district initiative fared very well in the opinion of teachers, probably because its governance base was so broad and its design so carefully constructed. Through collective inquiry at the district level, educators in Ames are in a position to make each initiative even better.

Models of teaching are not static practices; they are models of learning that launch further study of students and how they learn.

Hypothesis 6

Working in small groups, with teachers sharing responsibility for their own learning and for helping one another, a faculty can become a nurturant unit. A major dimension of schooling is creating caring communities for children. Much less attention, however, has been directed at *how* to develop schools as organizations that nurture the professionals who work within them. Building closer professional communities, developing democratic interchange, and embedding the study of teaching into the work day can have a considerable effect on professional ethos. And, as a structural process supporting these changes, inquiry can also benefit our collective mental health.

Our assessment of the literature on organizations suggests that the caring dimension depends to a large extent on creating organizations where many small groups—often composed of only three or four people—see themselves as not only working together to get the job done, but also as responsible for supporting one another in developing personally and professionally. Thus, the larger community both supports and is supported by small groups charged with: (1) inquiring into teaching and learning, and (2) supporting one another and the organization as a collaborative unit.

Case in point: The caring dimension. The Ames Community School District's renewal program illustrates many of the features of the school as a center of inquiry: embedded time for collegueship; a system for shared decision making; an information-rich, formative study environment; the study of research on curriculum and teaching; and a comprehensive staff development system (every teacher in the district is a member of a study group). In these ways, the district fosters the evolution of schools as organizations that nurture the professionals within them and, in the process, reduces feelings of isolation, stress, and alienation.

Inquiry Never Ends

In essence, school renewal seeks to create environments that promote the continuous examination of the process of education at all levels. To launch and test specific, deliberated improvements is the continuing goal because we, as individuals and as organizations, are never complete, never "finished." Classrooms, schools, and districts are social entities that, like the human spirit, require the challenge of growth to maintain themselves in optimum health, but even more important, to soar. ■

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Using Reflective Questioning To Promote Collaborative Dialogue

Reflective questioning creates opportunities for individuals to reflect aloud, to be heard by one or more colleagues, and to be prompted to expand and extend thinking through follow-up questions.

Ginny V. Lee
Bruce G. Barnett

For some time now, reflective practice has occupied a position of importance in the professions (Schön, 1983). Its relevance for educators today is heightened by the current focus on the development of learning communities and learning organizations (Senge, 1990). Reflection is essential to educators' capacity to think not only about their practice but also about *how* they think, their implicit theories, and the sense they make of their experiences (Argyris & Schön, 1975). The experience of reflection is enhanced when professionals are able to communicate with each other in ways that encourage and expand the process.

The use of reflection and reflective practices as strategies for developing more thoughtful and effective educators raises a number of important questions for staff developers. What kinds of activities and programs should be implemented to establish habits of reflection among prospective and practicing school personnel? How does a staff developer encourage and support reflection in professional development settings? How does a district or site administrator provide opportunities for reflection among colleagues?

One powerful form of reflection occurs when educators engage in professional dialogue with each other in small groups. The value of such professional exchanges is enhanced when participants use specific questioning skills to support the reflective process. *Reflective questioning* creates opportunities for individuals to reflect aloud to be heard by one or more colleagues, and to be prompted to expand and extend thinking through follow-up questions. Reflective questioning is a skill that can be developed and used by educators in all roles. Individuals can use it with peers, clients, supervisees, students (adult or youth), interns or mentees, and so forth.

This article is based on our experiences over the past decade teaching reflective questioning skills to educators and staff developers in the United States, Canada, Australia, and Europe. It includes background information about the origin of the strategy, describes various forms of reflective questioning and conditions that support its use, and provides guidelines for formulating and asking reflective questions. We provide two

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anecdotes to suggest the kinds of outcomes that can be reached through this strategy and conclude with recommendations to staff developers.

Origin of Reflective Questioning

The source of the reflective questioning strategy is the qualitative research methodology used by staff of the Far West Laboratory for Educational Research and Development (FWL) in its intensive study of school administrators (Dwyer et al., 1985). Participants reported that the process of being observed and interviewed about their work provided them with valuable opportunities for reflection and self-assessment (Dwyer et al., 1983). This, in turn, led FWL staff to create a program of professional development that encouraged school leaders to work with each other in a similar fashion.

In the Peer-Assisted Leadership (PAL) program, school leaders work with peer colleagues to engage in inquiry, reflection, and analysis about their own work. Partners learn specific skills that they use to observe and interview each other on the job over time, collecting and analyzing information about their own and their partners' leadership activities. The process can be likened both to action research and peer coaching. (Complete descriptions of PAL appear in Barnett, 1989, and Lee, 1991.)

In PAL, the basic building blocks of the inquiry process are shadowing and reflective interviewing. Shadowing creates a record of an administrator's work activities through direct observation; the reflective interview is used to extend the learning after the observation. By asking questions abut the observation, the interviewer provides an opportunity for his or her partner to reflect on what occurred. These reflections may include thoughts about how and why events unfolded, feeling associated with events, exploration of alternatives, plans for next steps, and so forth.

By thinking about the events, the observed person achieves a greater awareness of self and an increased understanding of how he or she enacts the role of school leader. This awareness and understanding encompasses areas such as personal and professional values and priorities, theoretical and applied knowledge, preferred modes of action, and the strengths and limitations one brings to the leadership task. As participants carry out multiple cycles of observation and interviewing, they are able to examine how policies, practices, and resources are linked as a system in their school (Barnett, 1990).

Reflection is also used in professional development activities such as coaching and mentoring in which the goal is to provide participants with a process of peer dialogue about their educational practice. We use the term "reflective interview" to describe the process when reflection is coupled with a shadowing experience. But direct observation is not a prerequisite to a reflective interaction, in which case we use the term "reflective questioning" to describe the interaction process.

Developing Reflective Questioning Skills

Reflective questioning is a technique in which one person prepares and asks questions that are designed to provide opportunities for the respondent to explore his or her knowledge, skills, experiences, attitudes, beliefs, and values. In a professional development setting, the typical goal is to broaden and deepen the respondent's understanding with respect to self, work roles, and/or performance.

Reflective questioning encourages the respondent to explore his or her *own* thinking; it is not intended to direct the respondent to a conclusion pre-determined by the questioner. For questioning to be truly reflective, the questioner must respect the respondent's statements, suspend judgment, and avoid attempts to manipulate his or her thinking.

When is Reflective Questioning Appropriate?

To determine if the strategy might be beneficial, the questioner must consider the context in which it will be used, the purpose for its use, and the relationship between himself or herself and the person(s) being questioned.

Context and purpose. Any context that calls for thoughtful and personal consideration invites reflective questioning. Processes may include considering alternative courses of action, examining relations between desired and achieved outcomes, clarifying beliefs or values, exploring commonalities (such as shared experiences, challenges, beliefs) within a group, reviewing the significance of an experience, and so forth.

Reflective questioning is appropriate only if its purpose is to support the respondent(s) in a *personalized process of exploration*. The questioner must be willing and able to work with whatever ideas, information, thoughts, and feelings arise. In contrast, the questioning process loses its reflective quality when the questioning is designed to lead the respondent to see what the questioner wants him or her to see, or to assess or evaluate the response.

Relationship with the respondent. The questioner's professional (and perhaps personal) relationship to the respondent influences the questioning process, as does the way the questioner treats the information received. For example, a supervisor may find that the best opportunities for reflective questioning are at times other than when he or she is engaged in evaluation of the other person's performance, since the evaluation process requires making judgments, which will hinder the reflective dialogue.

> **Reflective questioning is a technique in which one person prepares and asks questions that are designed to provide opportunities for the respondent to explore his or her knowledge, skills, experiences, attitudes, beliefs, and values.**

What Type of Climate Supports Reflective Questioning?

Before one can change something it is necessary to know what is occurring now. The change process often begins with increased self awareness and a willingness to examine one's own current practice. Even when the purpose of a reflective activity is simply increasing awareness of self, the process involves some risk. Thus, a climate of trust is important for supporting the process.

Questioners can help achieve such a climate by establishing two important norms: confidentiality and a non-judgmental stance in the interaction. These norms apply not

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only to the interaction between two individuals, but also among the members of larger groups that are engaged in reflective questioning. Group facilitators need to make these norms explicit and hold group members accountable for them. When participants find that revealing their thoughts and feelings can be done without fear of judgment or censure, they are able to process questions in greater depth.

Figure 1

Guidelines for Preparing and Asking Reflective Questions

Preparing Questions

1. Base questions on the respondent's own experiences
2. Word questions in neutral, non-judgmental ways.
3. Keep an overall purpose in mind.
4. Be prepared to follow up initial questions.

Asking Questions

1. Use a neutral tone of voice.
2. Incorporate active listening skills.
3. Refrain from giving advice.

Figure 2

Types of Questions and Statements That Can Encourage Reflection

EXAMPLE	CONSEQUENCE/REACTION
Clarifying Questions	
Tell me about how your reading program is organized and delivered.	Allows respondent to describe a situation in his/her own words
What happened when you spoke with the parents?	Encourages respondent to provide detailed information
Purpose/Consequence Questions	
What kinds of outcomes do you anticipate occurring if the teachers start the program?	Recognizes the possible results associated with an event
What reason guided your choosing these children to participate in the program?	Allows respondent to indicate the rationale for his or her decision
Linking Questions	
You indicated that many students have low self-esteem. You also mentioned that a new program you've started is aimed at social responsibility. Is there a relationship between these two issues?	Encourages respondent to tie together different pieces of information
How has this experience validated or changed your thinking?	Acknowledges how experiences influence respondent's attitudes and behaviors

Preparing and Asking Reflective Questions

Our experience has shown that most educators need assistance in learning to create reflective questions and in assessing how their verbal and non-verbal behaviors can promote reflective dialogue. We provide guidelines for preparing and asking questions and have educators practice these skills with each other. The guidelines are summarized in Figure 1 and described in the following sections.

The practice activities involve multiple opportunities to create and ask reflective questions in groups of two or three. These questions are typically based on role plays and participants' recollections of their own experiences. Written vignettes, case studies, and videotaped segments can also serve as the sources of situations for reflective questioning practice. Participants receive feedback on their practice activities from each other and from the workshop facilitators. As repeated practice cycles are carried out, participants are regularly asked to step back from the experience to reflect on what they are learning, which in turn supports them in refining and expanding their skills.

Preparing questions. The following four guidelines help questioners prepare questions.

1. Base questions on the respondent's own experiences. For questions to encourage a respondent to reflect, they must make sense to the person. When people reflect, they are exploring their own experiences. Individuals can reflect on others' experiences only in reference to themselves. For example, a person compares a colleague's experience to his or her own or reaches his or her own interpretation of its meaning. Questions need to be anchored in the experiences of the person being questioned if they are to be perceived as authentic.

2. Word questions in neutral, non-judgmental ways. Questions that use loaded language will be more likely to inhibit the

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reflective process than to support it. Questions should avoid implying that the questioner has the correct answer, expects an appropriate response, or is engaged in assessment or evaluation. For example, interviewers should avoid using phrases such as, "Why didn't you....?", "Don't you think that...?", or "Weren't you really trying to ...?"

3. *Keep an overall purpose in mind.* Again, for questions to make sense to individuals, there needs to be some reason for the questioner to be asking them, some purpose for the interaction. Reflective questions can assist during the early stages of forming a professional relationship and later as part of self-assessment and in planning future actions. There is no single "right purpose" for reflective questioning. To be useful to participants, however, the exchange should have some purpose about which the participants are in accord.

4. *Be prepared to follow up initial questions.* A reflective dialogue develops through interaction. The initial question may open the door to reflection, but the process will not be sustained unless the questioner is prepared to go the next step. This means having follow-up questions in mind and adjusting the succeeding questions in response to what the respondent is saying.

Reflective questioning can be compared to a dance in which the questioner both leads and follows. While he or she has a purpose in mind and a sense of where the dialogue may go, the questioner also follows the respondent's direction and takes cues about follow-up questions based on what is said.

Asking questions. Once questions are prepared, three additional guidelines will assist questioners in the reflective dialogue.

1. *Use a neutral tone of voice.* Intonation and body language need to be congruent with the non-judgmental words to deliver a supportive message. A phrase such as "Can you explain what you mean by that?" becomes highly charged if the emphasis is placed on the word "explain," "mean," or "that," or if one's posture becomes aggressive.

2. *Incorporate active listening skills.* The reflective process can be assisted by allowing the respondent ample time and opportunity to think aloud and to expand on initial thoughts. Active listening includes such skills as making eye contact, nodding, restating key words, and including sounds that signal the respondent to continue (for example, "uh-huh" or "mm-hm"). The questioner should not be so eager to go on to the next question that he or she cuts off the respondent's thinking.

3. *Refrain from giving advice.* Providing advice shifts the dialogue away from reflection to problem solving. The respondent may welcome (or even ask for) advice, but the questioner's opinions can influence the direction and content of reflection away from the respondent's own thinking. We recommend that problem solving and advice giving be kept separate from reflective dialogue.

What Types of Questions Promote Reflection?

As we work with groups of educators to develop reflective questioning skills, we frequently encounter the belief that meaningful reflection will occur only if the "right" questions are asked. We have found this not to be the case. Rather, we find that some very basic and even obvious types of questions are helpful. Simply saying, "Tell me more about that situation" or "Can you give me an example?" will stimulate reflection.

Our experience has taught us that the attitudes and behavior of the questioner are at least as important as the questions he or she asks. Attitudes that facilitate reflection demonstrating genuine interest in what the other has to say, listening attentively to responses and building from them in the dialogue, and supporting the other person in speaking authentically and honestly. In addition, we have found that there are some general types of questions that facilitate the reflective process. Figure 2 provides examples of the three types of questions described below.

Clarifying Questions. These questions provide an opportunity for the respondent to clarify events, actions, feelings, thoughts, or beliefs. Questions that allow a person to describe a situation, for example, serve at least three functions: they anchor reflection in the concrete reality of experience; they provide an opportunity for the person to recapture the event for purposes of examination; and they serve as a springboard for deeper exploration of meanings, alternatives, and conclusions.

Thus, while it might seem that clarifying questions are "pre-reflective," they are often an essential part of the reflective process. Question stems for clarifying questions include: "How would you describe ..."; "Can you recall what occurred ..."; "What happened when you ..." The basic "who," "what," "when," and "where" questions asked by newspaper reporters can serve as the start of clarifying questions.

Purpose and consequence questions. Questions that allow individuals to consider both the intended and unintended outcomes of situations assist them in seeing cause and effect relationships connected to their own actions. This is a stepping stone to considering if these are the individual's desired outcomes which, in turn, may lead to change. Question stems for this type of question might be: "What were you hoping to accomplish by ..."; "What kinds of outcomes did you anticipate ..."; "What reasons guided your choice of ..." This type of question is often inquiring about the "why" aspect of the respondent's behavior or thinking without directly saying, "Why did you do that?"

Reflective questioning can be compared to a dance in which the questioner both leads and follows. While he or she has a purpose in mind and a sense of where the dialogue may go, the questioner also follows the respondent's direction and takes cues about follow-up questions based on what is said.

Linking questions. One of the most important uses of reflective questioning is to support educators in articulating the connections among various elements of their professional worlds. When educators can explore their own implicit theories of action, they are in a much stronger position to consider changes in their behavior (Argyris & Schön, 1975; Osterman & Kottkamp, 1993).

Linking questions provide opportunities for respondents to consider relationships among variables such as the specific contexts in which they act, their own personal/professional histories, their beliefs and values, their goals and aspirations, the resources available to them, their interdependence with other professionals, their interpersonal relationships, and the knowledge and skills base

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For educators who are learning the strategy of reflective questioning, especially for those in positions of leadership and authority, one of the greatest challenges is the suspension of judgment. Staff developers who are accustomed to providing expert answers might also find it difficult to acquire and demonstrate the reflective questioning strategy.

that guide them. Questions that encourage linking will often take the form of mirroring back two or more ideas or pieces of information from the respondent's previous responses and asking if they might be related.

Linking questions need to be open enough for the respondent to reflect on the basis of his or her own experiences, as opposed to what the person may think should be the answer. A question to elicit a teacher's thinking about instructional strategies and student learning, for example, must communicate permission to consider how his or her actual experience may not match what was taught during preservice or inservice activities.

Another type of linking question is the "So what?" question. This type of question is often used at the conclusion of a workshop when a facilitator asks participants to consider the implications of the experience for them as they anticipate returning to the workplace. Similarly, when an administrator reviews with a staff member a particularly challenging situation and its eventual outcome, this kind of question can assist him or her in generalizing from the experience.

The success of reflective questioning does not depend on asking "just the right question." It relies much more on creating opportunities for respondents to think aloud and construct meaning for themselves.

Outcomes Associated with Reflective Questioning

Our experience suggests there are multiple benefits for educators who work closely with their peers in creating and asking reflective questions. Not only do they gain new insights and knowledge by reflecting on their own situations, but they also benefit by suspending judgment in attempting to better understand the context, rationale, and consequences of other professionals' situations (Barnett, 1990; Lee, 1991). Two anecdotes illustrate the types of effects we have observed.

A common outcome is that an individual's thinking and action are influenced during the reflective questioning process. A prime illustration of this occurred after a principal had observed a colleague conducting a teacher evaluation session. Before engaging the colleague in the reflective questioning process, he was quite skeptical about the way in which she had conducted the evaluation and questioned the appropriateness of her approach. Nevertheless, he assumed a neutral and non-judgmental position, setting aside his interpretation while he used reflective questions to explore the situation.

His colleague clarified the background of her school's teacher evaluation system, explained her reasons for using it, and described its effect on teachers. As a result, he found himself not only understanding her perspective but also shifting his own beliefs. He ultimately decided to incorporate some of his colleague's ideas into his own teacher evaluations.

Reflective questioning also has an effect on educators' *collective* actions (Mueller & Lee, 1989). A group of administrators participated in the year-long PAL process. As a result of the trust, mutual respect, and shared understanding that developed among participants, the group decided to continue meeting to discuss and resolve common problems they faced.

Initially, the group addressed curricular and instructional challenges in their individual schools. Further reflection led them to a district wide problem. They were called away from their sites several times each September for district meetings, detracting from getting the school year underway efficiently. The group approached central office personnel who, upon realizing the dilemma they were creating, changed the district's calendar to avoid September meetings. Based on their initial success in working collaboratively with district officials, the group took on additional district wide improvement efforts, such as developing an alternative evaluation procedure for principals. The group became a significant part of the district's decision making process.

Conclusions and Recommendations

For educators who are learning the strategy of reflective questioning, especially for those in positions of leadership and authority, one of the greatest challenges is the suspension of judgment. Staff developers who are accustomed to providing expert answers might also find it difficult to acquire and demonstrate the reflective questioning strategy. The following guidelines can help.

1. Recognize and honor the importance of hearing and being heard. We all know what it feels like when we are speaking to someone who presumes to know what we think before we say it, or doesn't really hear/understand what we mean, or passes judgment without knowing the whole story. It can be both frustrating and demeaning.

The same is true in the reflective questioning process. The questioner must acknowledge and remember that she or he really cannot know how another person sees things or why another person acted in a certain way without first hearing that person speak. All of us believe we have good reasons to think and act as we do. As reflective questioners, we must remember that our colleagues believe the same of themselves.

2. Keep the process at the forefront. The success of reflective questioning does not depend on asking "just the right question." It relies much more on creating opportunities for respondents to think aloud and construct meaning for themselves. The questioner needs to focus more on whether the process is providing such opportunities than whether particular questions are being asked.

When staff developers and other educa-

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tional leaders can assist colleagues in learning ways of talking together that increase understanding of self and others, the stage is being set for collaborative dialogues about improving collective practice. Reflective questioning is a promising strategy in the creation of such learning communities within and across schools.

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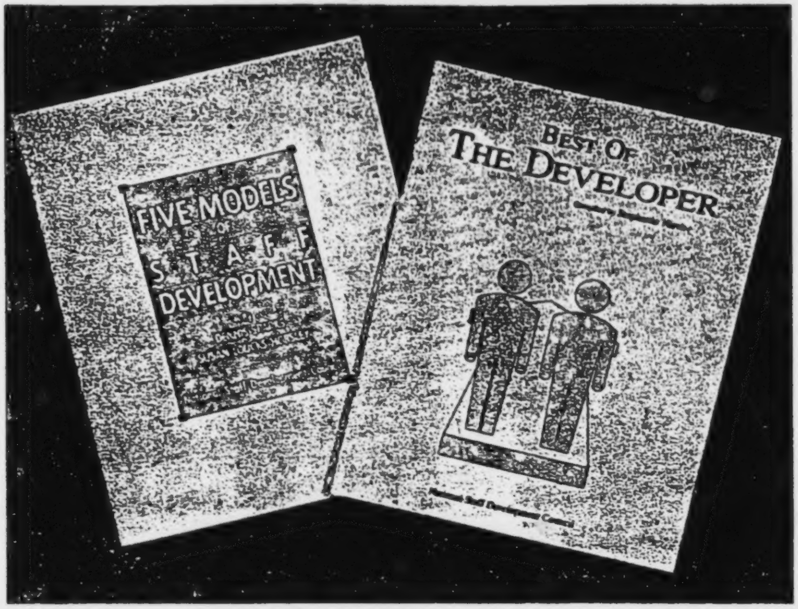

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Professional Development Through Action Research

Steps in conducting action research are described as a means of professional development.

Jack A. McKay

There is a strong consensus that change, to be positive and successful, must have the involvement of and ownership by those expected to carry out the change (Coch & French, 1948; Imber & Duke, 1984). The difference between success and failure will be closely tied to the degree of involvement of teachers and principals (Conway, 1984). Organizational researchers believe that lasting change takes place when change strategies involve educators in experiences in which they anticipate success (Hackman & Oldham, 1976). Action research is an effective strategy for engaging educators in the change process.

The direct involvement of educators in action research activities will be more effective than other strategies used to bring about educational reform. In an effort to provide guidance for teachers and administrators involved in school reform and staff development, this article defines action research, describes the process of action research, suggests action research issues, and presents implications for school reform.

What is Action Research?

The traditional researcher investigates an educational issue and then generally leaves implementation of the findings to principals or classroom teachers. Traditional research is often intended to expand or create new theory. In contrast, educators involved in action research think about a specific group in a particular setting with the main goal of finding better ways to do their job. Action research takes place when educators initiate and control the research in conjunction with the other day-to-day activities of leading a school or classroom. It is a search for answers to questions relevant to educators' immediate interests, with the primary goal of putting the findings immediately into practice.

Origins

Action research started as a way of applying the scientific method to the study of social science (e.g., group dynamics) and educational problems. The term "action research" was developed by Collier (1945) as a description of collaborative activities where research contributed to the improvement of Native American farming practices. During the 1940s, Lewin (1948), a leader in the study of group dynamics, used action research in experiments on change with community workers.

With the early success of action research

Educators involved in action research think about a specific group in a particular setting with the main goal of finding better ways to do their job.

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itself as a process of change, Corey (1953), then the Dean of Teachers College at Columbia University, was instrumental in the 1950s in applying the principles of action research to the teaching process. He believed that teachers were more likely to improve and modify their behavior if they were involved in reflecting on their own practices.

In the 1960s, action research was primarily used in the areas of organization development and human relations training. During the 1970s, the idea of practitioners doing practical research declined in the United States because it was viewed by some "experts" as less rigorous and too limited in scope to be useful. During the 1970s and 1980s, action research was instrumental in educational reform in Australia and England. Because of successes in school reform in these two countries, action research regained legitimacy in the United States as an integral part of teacher training and staff development.

Benefits

Action research provides an opportunity for teachers and administrators to explore and experiment with different teaching and leadership methods in a positive and constructive manner. A number of researchers have investigated the potential of action research as a means of improving student achievement through more effective teaching and administration of schools (Cohen & Manion, 1980; Elliot, 1991; Kemmis, 1981; Nixon, 1987; Stenhouse, 1975).

According to findings by Pine (1981), educators involved in action research became more flexible in their thinking, more open to new ideas, and more able to solve new problems. Simmons (1985) indicates that action research projects influence teachers' thinking skills, sense of efficacy, willingness to communicate with colleagues, and attitudes toward professional development and the process of change.

Studies by Little (1981) found positive changes in educators' patterns of collegiality, communication, and networking with others in the school. Strickland (1988) found that teachers engaged in action research depended more on themselves as decision makers and gained more confidence in what they believed about curriculum and instruction.

Shalaway (1990) determined that educators involved in action research grow intellectually and professionally, establish rewarding relationships with school and university colleagues, increase their own self-esteem, and create new career opportunities. In another study, Simmons (1985) found that action researchers were reading, discussing, thinking, and assessing ideas from related research (i.e., the questions, methodology, theories and hypotheses, findings, and assumptions) with expanded analytical skills. They were asking questions such as: What does this suggest to us? Can we think of another way of seeing that? What other important factors influence this situation?

Oja and Pine (1987) conclude from their studies that action research activities liberate teachers' creative potential, stimulate their ability to investigate their own situations, mobilizes them to solve educational problems, and is a concurrent process of research and staff development. Stenhouse (1975) claims that action research is a step towards emancipation of the teacher.

In summary, researchers studying the benefits of action research are consistent in their findings that educators grow personally and professionally. Perhaps an equally significant conclusion is that educators gain a sense of empowerment and assume greater responsibility for the future of their learning and teaching. The next section of this article explains how an action research project is conducted.

How Is the Action Research Conducted?

Action research is a cyclical process that involves identifying a general idea or problem, gathering related information, developing an action plan, implementing the plan, evaluating the results, and starting over with a revised idea or problem. Like most new ventures, collaboration with others promotes a stronger sense of responsibility and commitment. Action research, to be most beneficial, is a collaborative activity that may involve other teachers, students, parents, or administrators.

Watson and Stevenson (1989) found that the working conditions most supportive of action research provide:

- A forum in which to share findings and frustrations.
- Opportunities to educate but not to indoctrinate.
- Time to rethink, re-examine, and relive the principles that underlie their own activities.
- Colleagues, and particularly the principal, who are supportive of the action research project.
- Tolerance for changes in the classroom due to the results of the action research findings.
- Colleagues available to observe and help articulate the problem.

Educators involved in action research became more flexible in their thinking, more open to new ideas, and more able to solve new problems.

The steps that follow provide a process for conducting action research. Along with a description of each step, an action research example is included to illustrate the steps. The example involves two teachers interested in improving their third grade students' ability to solve math story problems.

1. Identify an issue, area of interest, or idea. Educators first need to select an issue worthy of study in the work setting. Issues might include the teaching of reading or math, the use of computers, or the adoption of cooperative learning. For example, two third-grade teachers decided to focus on how they taught math story problems in their classrooms. Both teachers were concerned about their students' lack of success in solving math story problems in daily lessons and on the California Test of Basic Skills (CTBS), but differed on how best to adjust their teaching to assist students in this area.

2. Define the problem or issue related to your area of interest. Clearly stating the problem and question to be studied is the most critical step in the action research process. One effective approach is to define the problem by describing the differences between the current and the desired situation. The action research might then focus on the reasons for the difference between the current and desired situation. The problem statement or question is essential to the rest of the action research. It sets a direction for the researcher as well as the reader of the results and should be stated very precisely.

In our example, the third-grade teachers were concerned that their students scored below the national norms on math story problems of the CTBS while scoring well on the basic math computation section of the

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same test. The problem statement in this example might be: "Students do not do as well on math story problems as they do on other parts of the math section of the CTBS." Or, the problem could be stated as a question: "Why don't our third grade students score consistently well on the math application section of the CTBS?"

3. Review related information from journal articles, books, or workshops. The teacher or administrator needs to review journal articles to find related information about the problem. Usually a brief review of a few related professional journal articles and/or books is sufficient. This review provides the action researcher with an understanding of the problem. some ideas of how others have addressed similar problems, and may suggest possible ways of conducting the research.

As a result of the action research project, the teachers concluded that to improve student scores on the CTBS math story problem section, their students should have opportunities to work with a wide variety of math manipulatives and use the math book as a supplemental learning resource.

Some common errors in reviewing journal articles and books are: (a) carrying out a hurried review in order to get started on the project, (b) relying too heavily upon secondary sources of information, (c) concentrating on research findings and not on methods and measurement processes, (d) failing to review information indirectly related to the problem, or (e) copying bibliographical information incorrectly (Borg, 1981).

In our example the two teachers (a) reviewed the CTBS results; (b) reviewed story problems used in the CTBS; (c) reviewed the methods and assignments suggested in the text; (d) discussed their concern with other teachers, their principal, and district curriculum director; and (e) reviewed appropriate journal articles and books (Burns, 1987; Stenmark, Thompson, & Cossey, 1986).

4. Identify the questions to be dealt with in the action research project. Questions should be based on the researcher's own experiences and readings and should be listed in priority to guide the researcher in addressing the problem.

In our example about teaching third-grade math story problems, the questions might be: "What are some of the ways students could score better on math story problems?" But, this question might be too vague to guide the researcher in setting up a project. An alternative question might be, "Which method of teaching math story problems is more effective for third graders--(a) following the math book sequence, or (b) supplementing the math book sequence with math manipulatives?" The specificity of the questions helps narrow the focus when developing the action research plan.

5. Develop a plan or procedure to answer the question. In this step, the action researcher determines the sequence of activities for how the project will proceed.

In our action research example, the following questions needed to be answered: (a) Which teachers and students will be involved in the project? (Two third-grade teachers and their students were involved.) (b) Which teacher and students will only use the math book and which will use the math book with manipulatives? (Since the teachers had differing beliefs about the benefits of math manipulatives, one agreed to use the basic math book and the other agreed to use the basic text and math manipulatives.) (c) How long will the project last? (The two teachers agreed to undertake the action research project for the school year.) (d) How and when will information be gathered? (The teachers decided to use the results from tests of story problems given periodically during the school year. Besides the math story problem test results, the two teachers kept notes of their observations. Students were also asked their views on learning how to solve math story problems.) (e) How will parents be informed of the project? (Parents were informed of the purpose and time line of the project. They were also asked to participate by helping students in both classrooms.) (f) How will the results be shared with other teachers? (At the beginning of the year, the two teachers briefly explained their action research project at a faculty meeting. At the end of the school year, the outcomes were reported to interested faculty, administrators, and parents. Results of the action research project indicated that students who used math manipulatives scored consistently higher on teacher-made tests given throughout the school year and on the CTBS given in April.)

6. Make recommendations based on the results of the project. As a result of the action research project, the teachers concluded that to improve student scores on the CTBS math story problem section, their students should have opportunities to work with a wide variety of math manipulatives and use the math book as a supplemental learning resource.

As a result of the initial findings, a new problem or question may emerge and the next action research project begins. For example, the teachers may be interested in determining which math manipulatives were more effective in helping students learn how to solve math story problems.

Possible Applications for Action Research

There are many issues that could be explored by teachers and administrators through action research. Some of these issues are outlined here.

- *Organizational.* Action researchers might prepare problem statements on the impact of the school's organizational practices. For example, is student academic growth higher: (a) In the interdisciplinary or departmentalized school structure?, (b) in the K-8 or K-5 and 7-8 grade alignment?, or (c) in classrooms with or without paraprofessionals?
- *Curriculum.* Action researchers might investigate whether there is higher academic growth: (a) In classrooms where students use the calculator or in classrooms where students work out each math problem?, (b) in classrooms where the teacher corrects written assignments or in classrooms where students correct other student's written work?, or (c) in classrooms where word processing is expected or in classrooms where students can turn in written assignments in long-hand?
- *School climate.* Action researchers might study teachers' or students' perceptions of their school. Surveys could be developed to determine if school climate is higher when: (a) There is emphasis on extracurricular emphasis on intramural sports activities?,

(b) there is school-wide counseling services or there are homeroom teachers who serve as advisors?, (c) there is the core (social studies, language arts, etc.) curriculum or there is subject matter departmentalization?, or (d) there is new student orientation programs in the spring prior to attending the school or in the fall after the student is already attending the school?

Implications for School Reform

Action researchers can determine what works more effectively in their classroom or school, share the findings with others, and be involved in an activity that is personally interesting and professionally rewarding.

A more important outcome of action research is the sense of accomplishment resulting from the completion of a project directly related to one's profession. Educators involved in action research feel empowered and efficacious (Stenhouse, 1975). Besides the sense of autonomy and renewed respect from peers, supervisors, and students, action researchers report a higher level of self-esteem and career satisfaction (Strickland, 1988).

The action research process itself may be more important than the project's results. It may be one of the best methods of developing a climate that supports educational reform. Action research is a change process that encourages risk taking, provides a safety net for failure, raises the status of the educator from skilled technician to scholar-practitioner, and most importantly, improves student academic achievement.

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Advancing Professional Inquiry for Educational Improvement Through Action Research

DONALD M. MILLER
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Action research is a staff development process which advances professional inquiry, improves education, and promotes teacher development.

Teachers can contribute to educational improvement by conducting classroom research concerning teaching and learning processes (Goswami & Stillman, 1987). This action research role for teachers can enhance the professional status of teaching, generate theory and knowledge, increase the effectiveness of improvement efforts, and promote teacher development.

The role of teachers as agents of inquiry has typically been neglected. Rather, teachers have been disenfranchised by many educational innovations, especially those involving the appearance of "teacher proof" curricula. They have been socialized to receive knowledge generated by others rather than trust their own capacities to assign meaning through action and reflection. Chittendon, Charney, and Kanevsky (1978) capture teachers' lack of confidence:

> . . . *historically teachers have been told that the source of knowledge about learning resides somewhere outside their classrooms, perhaps in curriculum or research labs. Given such conditions, it is not surprising to find some teachers so lacking confidence in their own views that they doubt the legitimacy of their experience with children when confronted with "expert" evidence that goes against it. Insofar as teachers are unable to look critically at their classrooms, their teaching suffers. It becomes uninteresting and takes on qualities of routine and mindless practice that characterize too many elementary schools. (p. 58)*

Knowledge in context is an essential component of efforts to improve practice. Too often the examination of teaching and learning has been stripped of the many real life variables that affect children. Because many educational studies have examined discrete elements of a problem at the expense of the ever-changing context of the classroom, teachers often find research meaningless and irrelevant. Without a regard for context, action is uninformed. With a respect for the realities of the classroom, action becomes relevant and meaningful.

Action Research

When teachers engage in their own classroom-based inquiry, they use their own expertise, experience, initiative, and leadership. This offers teachers active participation in the development of meaning and knowledge. But, what does it take for teachers to value their own experience and skill as a source of expertise, to initiate and direct their own inquiry, to analyze their experience with students, and to engage in the construction of knowledge?

We believe that through action research teachers could document, discuss, reflect on, and analyze their teaching practices.

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We conceive of action research as a recursive ongoing process of systematic study in which teachers examine their own teaching and students' learning through descriptive reporting, purposeful conversation, collegial sharing, and critical reflection for the purpose of improving classroom practice. We see it as characterized by (a) a collegial environment and community of inquiry in which teachers reflect, question, hypothesize, document, and evaluate; and by (b) a safe and supportive environment in which teachers commit to, risk, and implement experimental actions. Under these conditions the process can produce change, generate informed action, and produce knowledge through reflection on practice (Kyle & Hovda, 1987a, 1987b). Action research empowers teachers to study their own circumstances, transform their experiences, develop craft knowledge, take purposeful responsibility for improving practice, and secure ownership of professional knowledge.

Action research is not the exclusive territory of those with technical and methodological expertise. Rather, this mode of research is suited to teachers who cultivate a thoughtful, analytic habit of mind. Barritt, Beekman, Bleeker, and Mulderij (1985) propose that action research can engage everyone who teaches:

> *We believe that everyone who teaches, and we mean teachers in the broadest sense, including parents as well as professional teachers, should be engaged in research. Informally they already are. Everyone who watches, thinks about what they have seen and acts on that information is engaged in research. Research isn't separate from life; it is a special way of regarding life. It is a habit of mind which all of us have more or less and which can profitably be cultivated in everyone. (p. 69)*

Examples of Action Research

Examples of action research as a staff development process have been reported by Pine (1986), who described collaborative action research on projects which addressed various topics (e.g., individualization, peer tutoring, learning centers, learning modules, small group instruction, reading strategies, and classroom management). The outcomes of these studies led to concrete changes in classrooms and to teachers' reports of significant professional growth.

More recently Oja and Pine (1987) described a similar process of collaborative action research in which teachers conducted research on school-wide problems of teacher morale and scheduling. Teachers on the action research teams identified several outcomes with respect to their role as researchers: (a) an increased understanding of the relationship between scheduling, curriculum, and school philosophy; (b) the creation of new patterns of communication, sharing, and collegiality; (c) the building of a common body of knowledge; and (d) an increased ability to identify, analyze, and solve classroom problems. Simmons and Sparks (1985) described the use of action research to help teachers meet their own improvement goals.

Teachers can contribute to educational improvement by conducting classroom research concerning teaching and learning processes. This action research role for teachers can enhance the professional status of teaching, generate theory and knowledge, increase the effectiveness of improvement efforts, and promote teacher development.

A Continuum of Approaches to Professional Development

The facilitating effect of action research or educational improvement efforts may be better understood by considering a continuum of approaches to staff development. The continuum ranges from traditional programs to action research projects and strategies. This range of approaches to professional development can be described using six factors, or dimensions, which are examined later. Let us consider the following examples on this continuum.

In school system A, 2 days in the school calendar are dedicated to staff development. Nationally-known speakers offer 1-day workshops for all the teachers. The workshops address a theme identified by the school administration as a generic concern for K-12 teachers. Each teacher has the freedom to implement the workshop ideas in ways that fit his or her classroom situation.

School system B, as part of a state-wide and grant-supported staff development thrust on instructional effectiveness, conducts a series of training workshops on a particular technique or model. The goal is to train all the teachers in the school system in the designated model.

In school system C, school-based study teams have been established to conduct projects on a curriculum or instructional topic of their own choosing. They meet regularly (often weekly) to reflect on their experiences, to discuss classroom observations, and to examine their data. They collaborate with and support each other in systematically studying and modifying their practice (Livingston, Castle, & Nations, 1988; Miller, Snell, & Snell, 1987).

To compare the relationship of these and other approaches, we have conceptualized a continuum of professional development as shown in Table 1. At the left end of the continuum is the traditional program, characterized by maintenance functions and by teacher's responsibilities for implementation only. At the other end of the continuum is action research, with leadership status for teachers defined in terms of their initiative, experience, judgment, and insights as professionals. The continuum is elaborated by the various ways in which assumptions, provisions, and outcomes are combined in six areas: expertise, knowl-

Table 1
Continuum Of Approaches To Professional Development For Teachers

Factors	Action-Research Traditional Programs	Projects & Strategies
1. Source of expertise	External authority	Participating practitioners
2. Locus of knowledge	Formalized outside the context	Located in context and problem situations
3. Experience	Draws from a formalized body of knowledge	Draws from teacher interactions with learners and situational realities
4. Initiative	Arises from system and administrative problems and priorities	Emerges from teaching/learning situations and needs
5. Leadership	Program administration	Group centered leadership
6. Mode of organization	Individual and passive	Collaboration for engagement

edge, experience, leadership, initiative, and mode of organization.

On the left side of the continuum, teachers have limited opportunities for developing their potential as professionals or for making creative contributions. We believe this characterizes traditional approaches to educational innovation and training for teachers. As a result of this approach, teachers are often concerned with following prescribed procedures and goals and do not have any delegated responsibility for adaptations in their own classroom, in their own school, or, most importantly, to the particular learning needs of their own students. In contrast, the right side of the continuum challenges teachers and offers significant participation in educational improvement.

In making this comparison, we are not asserting that traditional staff development programs are dysfunctional or serve no appropriate purpose. Rather, we are asserting that educational improvement needs to involve teachers in ways which respect and engage their observations, ideas, analytic strategies, interpretations, and formulations.

We believe that in this continuum each approach serves a different purpose and has different effects on the professional status and efficacy of teachers. The continuum is *not* a continuous scale of positive and negative elements. Rather it is a nominal scale indicating relative distinctions among staff development approaches. We now examine each of the six factors more thoroughly.

1. ***Source of expertise***. Traditional staff development programs have assumed that valid expertise about teaching and learning comes from those not involved in the day-to-day world of teaching and that expertise lies with those who have administrative authority or who have published scientific theory and knowledge with claims of universal generalization and invariance (Schon, 1983). Traditional programs have reflected the view that authoritative knowledge is to be imparted to and then applied by practitioners. This approach has several consequences: (a) tightly prescribed training has been developed, as is found in teacher-proof curriculum packages; (b) teacher accountability systems have been designed; (c) contextual aspects of teaching and learning have often been disregarded; (d) passive-teaching learning methods have been valued; and (e) a hierarchal separation of research and practice has been reinforced.

In contrast to traditional approaches, action research posits a dynamic and context-based view requiring the exercise of professional judgment. Expertise can emanate from teacher-initiated action, teacher reflection, discussion, and dialogue. In brief, meaning can be constructed through an action-reflection-action cycle. Rather than being the subjects of research, teachers become articulate experts whose expertise reflects a dynamic blend of experience and reflective knowledge.

2. ***Locus of knowledge***. It long has been recognized that knowledge is power. Whoever generates and disseminates knowledge can affect the goals, agenda, expectations, and values of a profession. Recognition and acceptance of where knowledge is located determines the rights and privileges of access to knowledge and the power to influence. What is knowledge? Who creates knowledge? How and to whom is it disseminated? For what

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purposes? Responses to these questions can affect the nature, character, and direction of teacher development and educational improvement.

In traditional programs, the locus of knowledge has often been determined by a high regard for distant authority and by a corresponding suspicion of teachers. This view has given priority to knowledge from external sources: experts, textbooks, technical journals. Hence, the efficacy of practice has rested in the hands of researchers, textbook publishers, the testing industry, curriculum developers, administrators, and scholars — all of whom are external to the teaching-learning situation.

In contrast, however, action research assumes that significance and meaning lie in the actual situations of teaching and learning. It also assumes that knowledge about teaching and learning should be determined by what teachers and learners actually do. This suggests that if effective teaching is to occur, teachers must have a central role in the development of knowledge that affects the care, education, and development of children.

3. ***The Role of experience***. To understand the role of teachers in generating knowledge, the reciprocal relationship between knowledge and experience must be recognized. As teachers go about the business of teaching, their skillful action shows them to be knowledgeable in a special way. They have "know-how."

To understand the reciprocity between knowledge and experience, it is useful to distinguish at least three kinds of knowledge (Reason & Heron, 1986): (a) *experiential* knowledge (gained through direct encounter with persons, places, or things); (b) *practical* knowledge (knowing how to do something — demonstrated by a skill or competence); (c) *propositional* knowledge (knowing about something — expressed in statements and theories).

Traditional staff development programs have disregarded teachers' experience and practical knowledge because they are deemed subjective, particular, and place-bound. Its underlying assumption is that teachers should be the recipients of knowledge (Reason & Heron, 1986). This has meant that authoritative, external knowledge has been used to make judgments about practice.

The way teacher experience has been traditionally evaluated and studied has been captured by Ross and Cronbach's (1976) metaphor of watching a train versus being on board a train. From the traditional perspective, to gain knowledge about a train and its passengers, observations are made at the station, during the journey, and upon arrival at the final destination to gain knowledge about a train and its passengers. The observations are made from points outside the train. Action research emphasizes the knowledge consequences of boarding the train; riding for the entire journey; talking with the passengers, the conductor, and the engineer; and looking out the windows.

> ***Because many educational studies have examined discrete elements of a problem at the expense of the everchanging context of the classroom, teachers often find research meaningless and irrelevant. Without a regard for context, action is uninformed. With a respect for the realities of the classroom, action becomes relevant and meaningful.***

Action research seeks to capture the pulse and vitality of life "on board the train" (i.e., the classroom). It provides the conditions for manifesting teacher know-how through reflection-on-experience. It enables teachers to describe and interpret their intentionality and explore the boundaries of their meanings. It is an iterative process in which knowledge arises from an examination of practice. It values personal knowledge (Polyani, 1962).

4. ***Opportunities for initiatives***. Teacher growth initiatives arise when teachers define goals, weigh possible alternative actions, and make decisions. Such initiatives involve risk and commitments that step beyond the existing state of affairs.

In traditional programs, initiatives usually arise from needs, problems, and priorities identified by the district and administrators as compared to their being identified by teachers and learners. Typically these initiatives have been based on needs assessments which reflect a deficit ideology. Such assessments often are disconnected from context and look at symptoms, not underlying capacities. Consequently traditional programs may be characterized by imposition and prescription.

In action research, initiatives for improvement are responses to the dynamics of ongoing teaching-learning activities in terms of goal-oriented efforts. Initiatives emerge when participants define the problems. Teaching is viewed as an experimental and recursive process always subject to improvement through action, reflection, and documentation.

5. ***Leadership responsibility***. A major function of leadership is to formulate goals and develop agendas for action. Leadership involves obtaining and allocating resources to support the achievement of valued goals. Leadership is essential for integrating staff interests, energy, interrelationships, and talents for a shared purpose promising benefits for the common good.

In traditional programs, leadership responsibility has been treated as a prerogative of administrators. Often leadership has been marked by unilateral judgment and decision-making. Too often these administrators have made decisions but never experienced the consequences of their own decisions.

On the other hand, in action research leadership arises in response to needs and goal seeking. It is flexible and responsive to the functional needs of a group. Action research enables teachers to undertake leadership to become more autonomous in

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judgments and to exercise initiative.

Sustained educational improvement is accomplished most successfully through action research that engages teachers in advancing professional inquiry. Engaging teachers in action research will not only lead to sustained educational improvement, but it also has the potential of enhancing the teaching profession.

6. ***Mode of organization***. The way in which staff development activities are organized affects program outcomes. Consideration of organizational forms and structures is important because they significantly affect the allocation of resources, time, and energy. In one school district, staff development may be a subunit of the personnel office organized to respond to the district's collective bargaining agreement. In another district, staff development may be organized as a semiautonomous unit to support curriculum and instructional programs. In a third district, staff development may be a function located in the superintendent's office organized to support a district-wide strategic plan.

In traditional programs, organizational matters center around the system, not students and teachers. Modes of organization have typically been the domain of administrators. These modes have usually been static and centrally controlled. System efficiency has been a major criterion for selecting the modes of staff development organization. Information is gathered for management purposes, for defining teacher roles, and for assigning tasks (Oja & Pine, 1987).

In action research, the organization of the activities center around problem solving. Information is generated as a resource for all participants. The organization of the activities is viewed as fluid and adaptable, roles are overlapping and flexible, and inquiry is participatory and collaborative (Oja & Pine, 1987).

Summary and Recommendations

In summary, sustained educational improvement is accomplished most successfully through action research that engages teachers in advancing professional inquiry. Engaging teachers in action research will not only lead to sustained educational improvement, but it also has the potential of enhancing the teaching profession. Ericson (1986) advocated that:

> If classroom teaching in elementary and secondary schools is to come of age as a profession - if the role of teacher is not to continue to be institutionally infanticidal — then teachers need to take the adult responsibility of investigating their own practice systematically and critically, by methods that are appropriate to their practice. (p. 157)

To achieve educational improvement and enhance the teaching profession, staff development programs must be created that (a) enable teachers to be leaders, (b) value teachers as experts, (c) facilitate teacher initiative, and (d) promote teacher inquiry. Staff development involving action research has the potential to liberate teachers from the maintenance mentality of traditional inservice education and offer significant participation inctivities that advance sustained educational improvement (Goswami & Stillman, 1987; Hustler, Cassidy & Cuff, 1986; Kyle & Hovda, 1987a, 1987b; Olson, 1988).

Finally, we believe that certain necessary conditions need to be built into the working environment of the schools if action research is to succeed as a staff development approach.

1. Teachers need time as part of their regular load for discussion, reflection, investigation, and speculation.
2. Teachers need an atmosphere with freedom to experiment and try out new ideas, to identify initiate their own problems for inquiry, to express their ideas and develop them into hypotheses, and to share and defend these ideas with administrators and colleagues. Freedom of inquiry ought to prevail.
3. Technical assistance and consulting services should be provided as needed.
4. Reasonable material and financial support (e.g., mini-grants) should be available for carrying out research.
5. University credit or staff development credit should be given to teachers for conducting research, if desired.
6. Opportunities and support should be provided for teachers to share their work through in-house publications, professional conferences, workshops, and journals.
7. Administrators and staff developers should recognize and support action research as a viable

staff development strategy.

The implementation of action research as a staff development approach would help schools become centers of inquiry where administrators, teachers, interns, and university faculty could share ideas and grow together in improving educational practice and in advancing student learning and growth. Sustained action research may be our best hope to integrate research and professional development that improves students' learning.

To achieve educational improvement and enhance the teaching profession, staff development programs must be created that enable teachers to be leaders, value teachers as experts, facilitate teacher initiative, and promote teacher inquiry.

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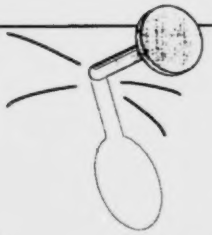
2

What is the Action Research Process?

■ Action research is a fluid process that is shaped by the thinking and experiences of the researcher. Still, there are clear benchmark steps that build upon each other. This section provides an overview of the phases of action research and useful tools to support initial planning.



ACTION RESEARCH:

FIVE PHASES

PROBLEM IDENTIFICATION

- Why do you want to do it? Is it an important and practical problem, something worth your time and effort, something that could be beneficial to you, your students and others?
- Is the problem stated clearly and in the form of a question? Is it broad enough to allow for a range of insights and findings? Is it narrow enough to be manageable within your time frame and your daily work?

PLAN OF ACTION

- Will you develop and implement a new strategy or approach to address your question? If so, what will it be?
- Will you focus your study on existing practices? If so, which particular ones?
- What is an appropriate timeline for what you are trying to accomplish?

DATA COLLECTION

- What types of data should you try to collect in order to answer your question?
- How will you ensure that you have multiple perspectives?
- What resources exist and what information from others might be useful in helping you to frame your question, decide on types of data to collect, or to help you in interpreting your findings?

ANALYSIS OF DATA

- What can you learn from the data? What patterns, insights, and new understandings can you find?
- What meaning do these patterns, insights and new understandings have for your practice? for your students?

PLAN FOR FUTURE ACTION

- What will you do differently in your classroom as a result of this study?
- What might you recommend to others?
- How will you write about what you have learned so that the findings will be useful to you and to others?

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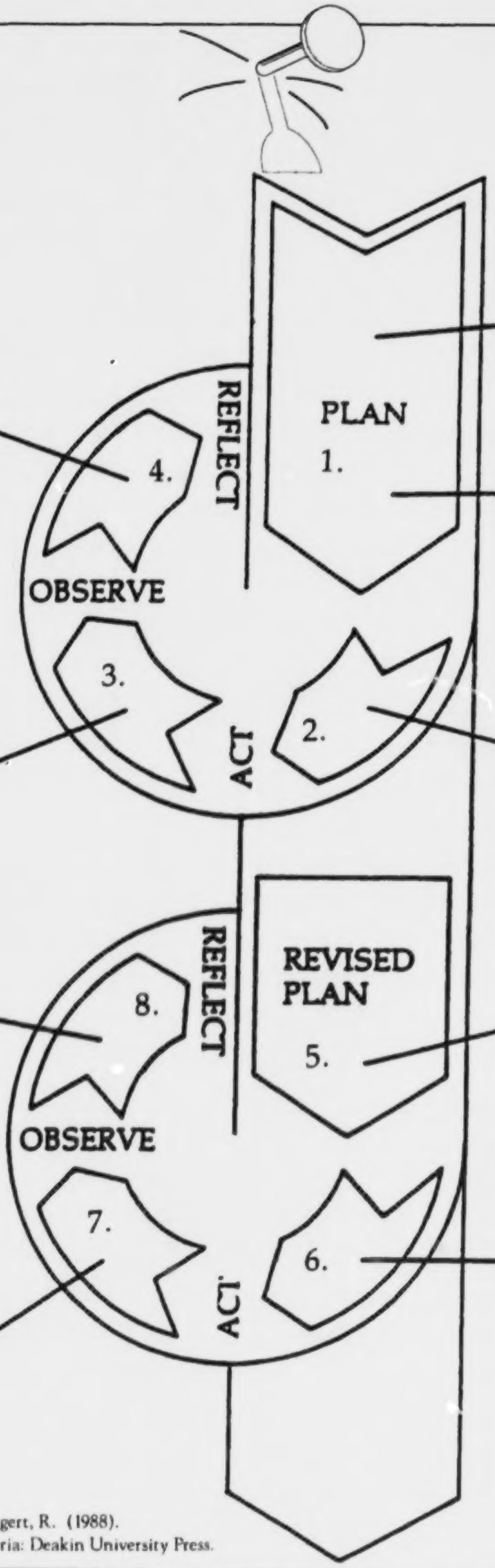
Adapted from the St. Louis Action Research Evaluation Committee



My students think that science means recalling facts rather than a process of enquiry. How can I stimulate enquiry in my students? Change the curriculum? Change my questioning? Settle on questioning strategies.

Shift questioning strategy to encourage students to explore answers to their own questions.

Try questions which let students say what they mean. What interests them.

Record questions and responses on tape for a couple of lessons to see what is happening. Keep notes of my impressions in a diary

My enquiry questioning is disrupted by my need to keep control in ways the class expects.

Continue general aim but reduce number of control statements.

Use less control statements for a couple of lessons.

Record on tape questioning and control statements. Note in diary effects on student behaviour.

Enquiry developing but students are more unruly. How can I keep them on track? By listening to each other, probing their questions? What lessons help?

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An example from Kemmis, S. & McTaggert, R. (1988).
The action research planner, 3rd ed. Victoria: Deakin University Press.

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Action Research...Taking Action

(My reflections on what I did and what I learned)

Ginny Kester

THE HOW

Action Research as a Process

For the teacher, action research provides a model for questioning teaching practices. Inherent to this model are 1) the classroom is the laboratory; 2) the process is cyclical in nature; 3) the results should change or enhance teaching practices.

Action Research as a Forum

Monthly action research meetings provide a forum in which teachers can share their successes and failures. Since the focus is on the process, the input of peers becomes instrumental in the direction of the project. Teachers offer a variety of perspectives, and their suggestions give other participants tools with which they can further analyze their results.

THE WHAT

Began with the question of why African-American students lag behind. Why haven't teaching methods such as multicultural education or cooperative learning had a greater impact?

↓

Led to an examination of what I consider the most important factor in any successes I had with students—my ability, because of the multiage house system in which I teach, to know my students and their families well. Therefore, my question became: How does school structure affect a student's sense of belonging? In turn, does this sense of belonging increase the student's desire to do well in school?

↓

As my research progressed, my hypothesis that students in a multiage house system would feel a greater bond to the school appeared to be wrong. Length of time in the house system did not seem to have an appreciable effect on the achievement of students. Also, the bond students felt toward their peer group emerged as a significantly stronger force in positive student achievement.

THE HOW

Action Research as a Catalyst for School Change

Action research groups often bring teachers with different perspectives together. Great emphasis is placed on developing this learning community so that teachers can openly and honestly seek out solutions within their own schools to the problems they have identified.

THE WHAT

After talking with my group, I took another look at my findings. What emerged was a picture of students who have two powerful forces working on them—both their academic teacher and their peer group. The values promoted by each group often come into conflict with each other and have a profound effect on what goals students set for themselves. I concluded that for a school to be effective, it must provide opportunities for both individual academic success, as well as for succes within the peer group.

The Results

Based on the findings of my action research project, an additional resource teaching position was created at my school. One responsibility I have in this position is to create programs for African-American students that address the needs of both the peer group and the academic classroom.

Actions

Peer Group:

- Videotape project in which a student interviewed African-American men in the community.
- Monthly award meetings at the neighborhood center where successes of a student in the area of community service and/or academic achievement are highlighted.
- Group project done by students living in the same neighborhood and focus on improving their attendance.

Academic Classroom:

- Emphasis to keep students in the classroom so that the teacher-student bond is enhanced. Programs for behavior and academic goals are designed to aid teacher and student.
- Weekly contact with parents of specific students. Periodic home visits to keep avenues of communication open.
- Neighborhood center program organized in response to findings of attendance project team. Emphasis is on reading and having teachers work at the neighborhood center.

Ginny Kester has been a middle and high school teacher in the Madison School District for many years.

Comments from Facilitators

It isn't until the spring of the year that it becomes clear to some participants what they really did. Then they go back and retrace their steps and say, "Oh yes, I was actually thinking about my question in a much broader way at the beginning of the year, but it was the result of some of my actions that kept me narrowing the focus throughout the year."

I do think it's a spiral—you have your question; you think about what you could do to gather information that would have an impact on your practice; next you go back and try to sort out what you learned; and then you try something new again.

ACTION RESEARCH PLANNING GUIDE

This process can be done as peer interviews. Group members can help each other formulate and clarify specific plans for action research projects.

The interviewer asks questions about each item in the guide and takes notes on the responses for the benefit of the researcher. The interviewer may use the probes on the form or replace them as seems comfortable and necessary.

It is helpful for the researcher to do some thinking about these areas prior to the peer interview. In many cases, the written action research plans are shared with the rest of the group for feedback.

The process and notes are confidential to members of the group.

The content of this *Action Research Planning Guide* has been strongly influenced by the work of John Elliott, David Hopkins, Stephen Kemmis and Robin McTaggart.

Action Research Planning Guide

The process and the notes are confidential to members of the group.
Use a black pen and write clearly to save recopying before duplicating.

Researcher:

Interviewer:

Date:

1. General Idea, Question or Area of Concern

What is something about your practice you would like to change or find out more about? Why would this make a difference to you? What broad vision, standards or mission would this study serve?

NOTES:

- Use this form as the starting point for a peer interview.
- The interviewer asks the questions, adding other probes or elaborations as appropriate.
- The interviewer takes notes and passes them back to the researcher, who can then use them as a tool in formulating his/her specific action research plan.

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Action Research Planning Guide

2. Background
Briefly describe the facts of the situation and any preliminary hypotheses that may help to explain the circumstances.

3. Action Plan
Are you planning to change the situation or find out more about it?

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Action Research Planning Guide

4. What data do you plan to gather?
Include at least two data sources and/or co-researchers to ensure triangulation.

5. Resources
What materials, references, and assistance do you need to carry out the data gathering? How will you get them?

6. Negotiations and Ethical Considerations
Who else do you need to talk or negotiate with in order to carry out this work? Are there any ethical or confidentiality considerations about the data to be gathered or about who will have access to it? Are any permissions needed?

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Action Research Planning Guide

7. Rough Time Line

Outline a schedule for gathering data and making sense of it through analysis. Include in your time line an estimate of when you may be ready to start a second, third or fourth cycle of action research with a revised question, action plan, data to gather, resources needed and so forth.

8. Audiences

What are some potential audiences for what you learn from this study?

9. Sharing and Reporting

What specific report formats might be most appropriate for particular audiences?

NOTES:

- One of the great strengths of action research is that it is intended to be used by the researcher, by other members of the community, and by educators in similar circumstances.
- It is useful to consider, before you start, the potential audiences for your action research. These may include, in addition to yourself, students, parents and colleagues in your school, administrators and school board members, members of the local community, and educators in other communities.
- Formats for reporting and sharing will vary depending on the audience. They could include written reports, case studies, video or audio tapes, letters or articles in the newspaper, presentations to parents, other teachers or the school board, and so forth. It's important to have your audience and possible format for reporting in mind as you plan for the data you will gather.

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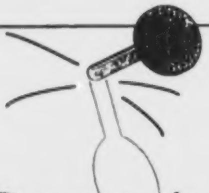
BEST COPY AVAILABLE



Classroom Action Research Planning Calendar

September	Begin exploring questions (perhaps not focused on one) Gather preliminary data Learn about the action research process Begin writing about questions
October	Focus on single question or topic Gather more preliminary data Reflect on data Continue writing/documentation
November	Write question in rough form Develop clear ideas about data gathering strategies Begin to analyze data On-going reflection Continue writing/documentation
December	Implement a data gathering plan Continue to analyze data and reflect on actions Continue writing/documentation
January	Continue data gathering Continue to analyze data and reflect on actions Continue writing/documentation
February	Continue to analyze data and reflect on actions Begin writing about findings
March	Record findings Reflect on findings Write up first draft of findings
April	Complete final report
May	Share findings

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Madison Metropolitan School District. Madison, WI.

3

Why Action Research?

■ Action research is a powerful form of professional development, incorporating reflection and dialogue in small learning communities. On the following pages, you will find thoughts and reasons for implementing action research. These views present a compelling justification for using action research to improve teacher practice and student learning.

Just as there is a vast untapped potential, yes, genius among the children, there is also a vast untapped potential among the teachers who serve the children... Teachers need their own intellectual and emotional hunger to be fed. They need to experience the joy of collaborative discussion, dialogue, critique, and research.

Reprinted with permission. Hilliard, A. (1991). "Do we have the will to educate all the children?" *Educational Leadership*, 49 (1), 31-36.

Reasons to do Action Research

Robin Marion

What works

- To figure out a particular "how to" of teaching
- To demonstrate to principals, parents, students, ourselves that a teaching practice is useful

Collegiality

- To have time to talk about teaching with our colleagues
- To develop better overall relationships with our colleagues

Personal/Professional Development

- To be supported and pushed in our development as teachers
- To recognize that growth doesn't just happen, that often we need more formal structures in order to grow
- To enable teachers to engage in intellectual pursuits and become continuous learners

Starting where we are

- To start with the teacher that I am, not that someone else thinks I should be

Consistency

- To practice being a continuous learner, to live by what I am trying to help my students learn
- To connect teachers in different roles, schools, districts

Challenging the norm

- To create new forms of professional development
- To create new forms of research
- To construct knowledge with teachers at the center

Robin Marion is a professor at National Louis University. Used with permission.

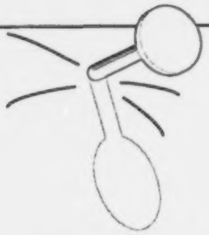
REFLECTIVE PRACTICE
WHY?

- If transformational change is to occur in our schools that has long term benefits for our students, teachers must engage collaboratively in reflective dialogue that causes them to look thoughtfully and critically at their teaching practices.

- Reflective practice implies a conscious and sustained effort to examine both purpose and process. It demands that teachers bring an openness and willingness to this work.

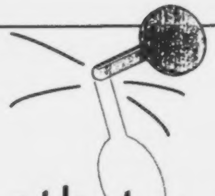
- When confronted with new challenges, teachers are more likely to draw on practices that have faced the scrutiny of rigorous self and peer reflection.

- Reflective practice is a cyclical inquiry process in which teachers continually observe, evaluate and revise their instruction as they learn more about themselves and their students.

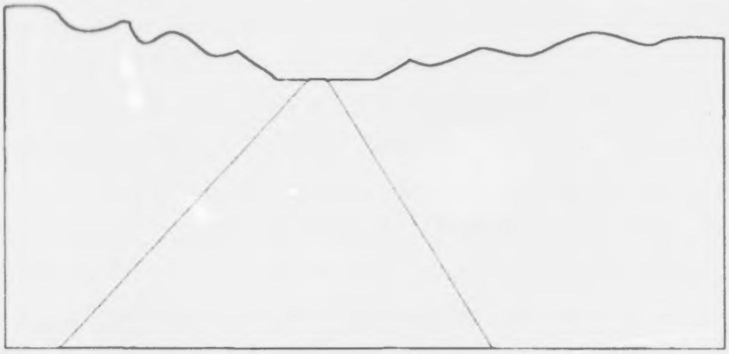


In order for students and teachers to benefit from empowerment, a professional community must develop among teachers, one committed to fundamental change in teaching practices.

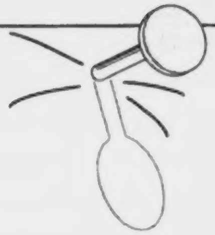
Reprinted with permission. Kruse, S., Louis, K.S. & Bryk, A. (1995). "Teachers build professional communities." *WCER Highlights*, 7 (3), 6-7.



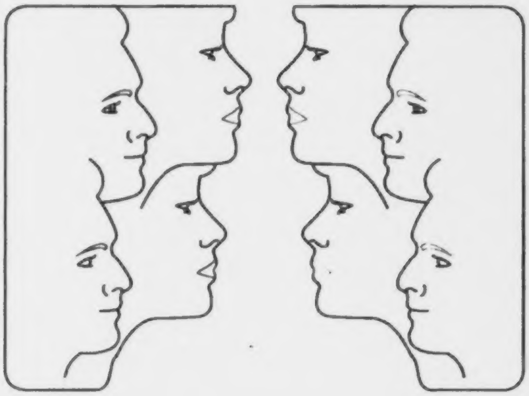
The path to change
in the classroom lies within
and through the learning
communities which
generate knowledge, craft
new norms of practice and
sustain participants in their
efforts to reflect, examine,
experiment, and change.



Reprinted with permission. McLaughlin, M. & Talbert, J. (1993).
"Contexts that matter for teaching and learning: strategic opportunities for meeting the nation's educational goals." Center for Research on the Context of Secondary School Teaching.



We need
one another's ideas
for stimulation,
and we need
one another's
perspectives to
enrich our own.



Reprinted with permission. Joyce, B. & Calhoun, E. (1995). "School renewal: An inquiry, not a formula." *Educational Leadership*, 52 (7), 51-55.

Collegiality

Classroom Action Research encourages teachers to practice collegiality in order to more effectively meet the ongoing needs of students. Schools that are most successful are those where teachers practice a high degree of collegiality. Jan Saphier and Matthew King summarize the research on effective school cultures and define collegiality, one of the critical norms, as collaborative staff behavior such as:

1. Frequent specific talk about instruction
2. Observing each other teach
3. Teaching each other what we know about teaching, learning and leadership
4. Mutual development of instructional plans and materials

Collegiality, a professional behavior, should not be confused with congeniality, which is a social behavior.

Jan Saphier and Matthew King. "Good Seeds Grow in Strong Cultures." Educational Leadership 42, 6: 67-74.

What are Some Effects of Teacher Research Projects?

Some effects are...

> increased sharing and collaboration across departments, disciplines, and grade levels;

> increased dialogue about instructional issues and student learning;

> enhanced communication between teachers and students;

> improved performance of students;

> revision of practice based on new knowledge about teaching and learning;

> teacher-designed and teacher-initiated staff development;

> development of priorities for schoolwide planning and assessment efforts; and

> contributions to the profession's body of knowledge about teaching and learning.

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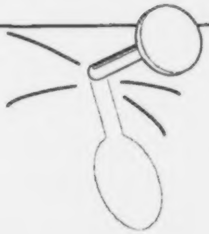


It is teachers
who, in the end,
will change the world
of the school
by understanding it.

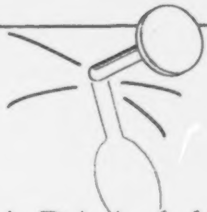
Reprinted with permission. Stenhouse, L. (1975). *An introduction to curriculum research and development*. London: Heinemann.

Becoming A Group

■ Part of the work of an action researcher is to support others as they pursue knowledge about their questions and interests. The success of these reciprocal roles of researcher and supporter of others' research rely on a safe learning community in which teachers are comfortable sharing and questioning. Use the following pages to think about rituals and processes that support group cohesion and enhance the action research experience.

Comments from Facilitators

Build in warm-up activities or check-ins from the very beginning so that the group can begin to connect with each other on both personal and professional levels. It is important to set ground rules in the beginning—either bring in some rules to talk about or have the group generate its own. Ground rules communicate that this will be a safe place to talk and work. Building a community is essential to how the group will work together and support each other over time. Teachers say that this is critical to what sets action research groups apart from others.



WARM-UP ACTIVITIES

Warm-up activities serve several important functions in action research meetings.

- They are an important strategy to help the group become better acquainted with one another, thus providing the opportunity for the group to build up greater trust over time.
- They set a climate for how the group will work together and they communicate what is important to the group.
- They focus the group on the topic and direction the group is pursuing.
- They let the group know that it is time to begin their work and leave other issues behind.
- They give the facilitator invaluable information about the needs of the group and the issues of importance to various group members.
- They energize the group. This ritual covers both personal and professional domains, and helps create an identity for the group.

Build in warm-up activities into each of your meetings.

WARM-UPS

Suggestions...

> Why did you sign up to participate in action research?

> What is something that you did during the summer which will have an impact on your teaching this year?

> What is a nickname you were called as a child, and what impact did that have on your life?

> What three words would others use to describe you as a teacher?

> What hopes and expectations do you have for action research?

> What is one success you have had since the beginning of the year?

> Share about someone who has had a major impact on your personal or professional life.

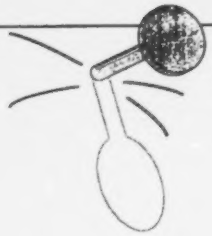
GROUND RULES

- Establishing ground rules at one of the early meetings is critical to building a sense of trust and safety, which is essential to participants talking about their questions, challenges, and practices.

- Groups can either generate their own ground rules or react to a list which facilitators bring to the group and then contribute any additional ideas.

- While the whole group should take responsibility for the implementation of the ground rules, it is ultimately up to the facilitators to guarantee the safety of the participants by making sure that the group adheres to the ground rules.

- The following two pages are examples of ground rules. The second list was developed by a group which included teachers who had previously participated in action research and were able to add some specific expectations based on their experiences.



Ground Rules

Begin and end on time.

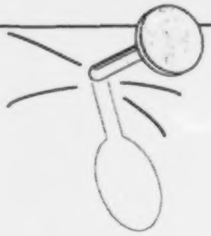
Share the talking time.

Listen to understand—
question to clarify.

No side conversations.

What goes on here, stays here.

Everyone's attendance and
participation matters.



Guidelines/Ground Rules

for Our Action Research Group

1. Confidentiality

> What goes on here, stays here.

2. Even distribution of time and energy limits

> Everyone has the opportunity to talk at every meeting.

> Individuals assume responsibility for how their time will be used.

> Have a timekeeper.

3. Ability to say what we want to each other

> Ask hard questions of each other. Be truthful, be caring, be constructive.

> Ground comments in wisdom and understanding of our motives.

> Engage in forgiveness if ground rules are violated.

4. Everyone here at 7:45.
We will finish by 11:30.

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Developing a Question

■ The greatest challenge in action research for many participants sometimes comes at the beginning of the process when a compelling question must be identified. Some people start with focus and clarity; others struggle and require support from the group to design the question that is right for them. The following section provides tools that will help to establish criteria for what makes an effective action research question, to support the initial development of questions, and to extend the thinking of action researchers as they refine their ideas.

What is a Good Action Research Question?

> The research question is ***significant***: one that focuses on teaching and learning practices that could have an impact on students' behavior or achievement.

One example of a significant question: *What can I do to encourage quiet high school English students to participate actively in class discussions?*

> The research question is ***manageable***: one that is do-able within the time constraints of the researcher. It is neither so broad as to be impossible to answer, nor is it so narrow that it cannot offer much insight.

One example of a question that could be too broad: *Why don't students do homework?*

One example of a question that could be too narrow: *What can I do to get students to stop chewing gum in my class?*

> The research question is ***contextual***: one that is embedded in the day to day work of the researcher rather than an extra project added on to existing teaching tasks.

One example of a question that goes beyond the context of the classroom: *What can be done to redefine young women's perceptions of themselves as women in the classroom?*

One example of a contextual question: *What motivational strategies can I employ to increase the achievement of seven of my African American students who are failing in science?*

What is a Good Action Research Question?

> **The research question is *clearly stated*: one that accurately conveys the focus and scope of the research.**

One example of a clearly stated question: *What happens when I attempt to use the activities developed for my gifted classes in middle school science with a heterogeneous class?*

> **The research question is *open-ended*: one that is phrased to generate a broad range of insights or understandings rather than to prove a specific point or to compare experimental and control groups.**

One example of an open-ended question: *What happens when I try to teach basic algebraic concepts to sixth graders?*

One example of a question that seeks to prove a point: *Should our district adopt a new curriculum that teaches sixth graders algebraic concepts?*

> **The research question is *self-reflective*: one that focuses on the actions or practice of the researcher.**

One example of a self-reflective question: *How might I change my questioning strategies so that my ninth grade English students begin to see and examine in depth the key themes in literature?*

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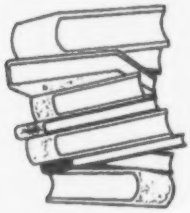
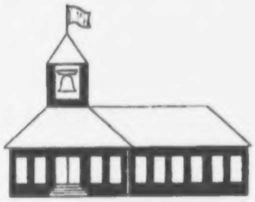
HOW DO YOU FIND A GOOD ACTION RESEARCH QUESTION?

Look at **classroom interactions**. Observe carefully the daily patterns of the teaching-learning process to identify what changes or actions by the teacher might result in a more positive learning environment for students.



Look at the **literature**. Read and reflect on how ideas and findings of others might be applicable to your classroom.

Look **beyond self and classroom**. Consider how your questions can connect to your colleagues and to the goals of the school.



Look **within**. Reflect on teaching-learning issues, problems, dilemmas, or opportunities about which you have some genuine passion or concern.

Adapted from the St. Louis Action Research Evaluation Committee. Used with permission.

Comments from Facilitators

Build in warm-up activities or check-ins from the very beginning so that the group can begin to connect with each other on both personal and professional levels. It is important to set ground rules in the beginning—either bring in some rules to talk about or have the group generate its own. Ground rules communicate that this will be a safe place to talk and work. Building a community is essential to how the group will work together and support each other over time. Teachers say that this is critical to what sets action research groups apart from others.

STARTING POINTS

- Ask individuals to fill out the "Starting Points" sheet. Tell them to think broadly about many areas for possible questions.

- Go around the group one at a time and list on a flipchart all of the different areas that surface from this handout.

- Ask each person to take one of the areas from the flipchart (could be an idea of theirs or someone else's) and practice writing a question in that area.

- Go around the group, and one at a time, ask each person to read their question very slowly twice. The group should listen to the questions. Absolutely no comments are made after each question is read.

- Ask the group to generate characteristics, qualities, and guidelines for what makes a good action research question.

Starting Points

I would like to improve

I am perplexed by

Some people are unhappy about

I'm really curious about

I want to learn more about

An idea I would like to try out in my class is

Something I think would really make a difference is

Something I would like to do to change is

Right now, some areas I'm particularly interested in are

NAME

Guidelines for Developing a Question

1. One that hasn't already been answered.
2. Higher level questions which get at explanations, reasons, relationships.
   "How does...?"
   "What happens when..."
3. Not "Yes-No" question.
4. Everyday language; avoid jargon.
5. Not too lengthy; concise; doesn't have to include everything you're thinking.
6. Something manageable; can complete it.
7. Something do-able (in the context of your work.)
8. "Follow your bliss"; want to feel commitment to the question; passion.
9. Keep it close to your own practice; the further away you go, the more work it is.
10. Should have tension; provides you an opportunity to stretch.
11. Meaningful to you; provides you a deeper understanding of the topic.
12. Question leads to other questions.

Generated by one Madison Metropolitan School District Action Research Group

Comments from Facilitators

Sometimes people come to a group knowing exactly what they want their question to be. Then they start listening to others' questions. The group members ask each other focused questions about the question they came with, and they become confused—maybe it's not the right question after all. In the beginning of the experience, encourage participants to be open to many possibilities. It's usually a relief to group members to hear that they aren't expected to come to the group with their question all figured out. They learn quickly that developing the question is a part of the process.

WRITING GOOD ACTION RESEARCH QUESTIONS

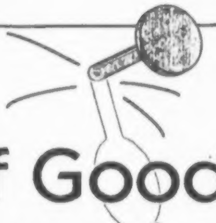
After group members have had the opportunity to identify characteristics of good questions, give them time to apply this knowledge.

- Present them with the list "Action Research Question Revision Activity." Ask participants, individually...then in small groups, to reflect on these questions:
  - > How well might these questions work?
  - > What concerns do you have based on the characteristics of good action research questions?
  - > What revisions would you suggest?
- Have small groups look at the handout, "Examples of Good Classroom Action Research Questions." Reflect on:
  - > What makes these good questions?
  - > What revisions would you suggest?

Action Research Question Revision Activity

- *How well will each question work?*
- *What problems might each question present?*
- *What suggestions do you have for revising each question?*

1. What motivates students?
2. Can computer programs improve my students' reading skills?
3. What available foreign language assessment materials, particularly software, exist at the high school level, and how successful are teachers at using them to measure student growth?
4. What is community building, and why is it so important?
5. Am I providing a sound foundation for middle school in my math and language arts programming?
6. What is the difference between Service Learning and Community Service?
7. How important is it to teach curriculum that is relevant to the world in which we live?
8. How do we counteract the marginalization regular education students subject on special education classmates?



Examples of Good Classroom Action Research Questions

1. How can I help the students in my classroom feel comfortable working with diverse groupings of classmates and overcome, at least part of the time, their desire to always be with their friends?
2. How can I more effectively facilitate independent writing in my kindergarten classroom?
3. How can I, a school nurse, better help classroom teachers address the complex issues of educating students with ADHD?
4. How can fifth grade students be encouraged to write thoughtful inquiry questions for a science fair?
5. How can the science department and the special education department heterogeneously group a wide variety of students in the same classroom and make it a successful experience for the students and staff?
6. How does the Writing Workshop approach affect my students' writing and their feelings toward writing?
7. What kinds of assessments best help me understand and teach a particular learner with autism?
8. How does chronic staff absenteeism impact the education of students with cognitive disabilities at my school, and how does it impact the staff who provides their education?
9. What changes in our teaching styles, curriculum design, materials, and professional support are needed to implement a new math program in our inclusive classroom?
10. How can I, a high school social worker, use the resiliency principles and research to more effectively support student success?
11. How does the direct teaching of anger management skills affect the classroom climate in primary-age school children?
12. What classroom strategies are effective in developing student self-evaluation of their learning?

TABLE OF INVENTION

Purposes

- > To push individuals to think of many questions in order to generate a wide variety of possibilities.
- > To develop questions which bring the two groups/areas on the grid together and create new ways of thinking about areas of interest.

Process

1. There are a couple of ways to get this going. The group, or individual, can decide on a theme to pursue throughout a sample grid, such as "communication" or "expectations" or "English as a Second Language." Questions in many different areas can be generated, depending on the needs of the group or individual.

2. The action research group, or individual, fills out the grid so that each question brings the two groups/areas together.

   See grid on the following page for example.

3. After the grid is complete, identify the emerging themes. What unique ideas, surprises or questions have surfaced?

Getting Started with Questions
Table of Invention

	Teachers	Students	Subject Matter	Milieux (Context)
Teachers				*What are the different structures and strategies for how we organize in this school which promote effective teaming among staff?*
Students	*What are the students' perceptions of the expectations which teachers have?*		*How can students take ownership for reaching district standards in mathematics?*	
Subject Matter				
Milieux (Context)				

Reprinted with permission. Kemmis, S. & McTaggert, R. (1988). *The action research planner*, 3rd ed. Victoria: Deakin University Press.

Getting Started with Questions
Table of Invention

	Teachers	Students	Subject Matter	Milieux (Context)
Teachers				
Students				
Subject Matter				
Milieux (Context)				

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The action research planner, 3rd ed. Victoria: Deakin University Press.

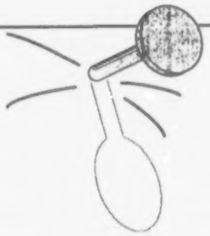
Comments from Facilitators

Narrowing the question is the really hard part for teachers. They come with broad areas because they want to explore something that will really make a difference. One teacher wanted to look at every facet of her writing program. It took several meetings before she was able to narrow her focus to something both do-able and meaningful to her. Sometimes teachers worry that their topics are too specific, but keep asking "Are you learning something?" and "How is that making a difference in your classroom?"

GETTING FEEDBACK ON YOUR QUESTION

After participants have the beginning of a question, it's time to hear how others react. Ask participants to find three people outside the group to give them feedback on their question at this stage.
(See description on next page.)

One cautionary note to share with the group: Sometimes participants find that people who are not familiar with action research will try to push them to make their questions more like traditional research questions. Don't try to make the questions fit someone else's formula. It is important for them to stay focused on what they really want to learn.



Ask Others Your Question

Homework

Take your question (or your question as it stands at this stage), and ask three people to react to it. Explain what the question is and why it is a question for you. Suggestions for getting feedback include:

- What do you think about the question?
- Do you think it is a worthwhile question to pursue?
- What suggestions do you have to offer?

Be sure to include at least one person who might know about your topic in depth. You might also want to include the principal of your school, not only for feedback, but to communicate the area on which you are beginning to focus.

BRAINWRITING ACTIVITY

Purposes

- To stimulate the thinking of the person who is working on a question by posing more questions
- To provide the person who has the question with ideas and new ways of thinking about their question
- To give people in the group the opportunity to practice asking questions

Process

1. Each person writes their question on the top of a piece of flipchart paper. Hang these on the wall around the room.

2. Groups of 2-3 people start at one sheet and write at least one question on the sheet that will help the person think more deeply or in different ways about the question. Thoughtful discussion about each question is generated by the small group at the flipchart paper.

3. Individuals return to their question sheet and reflect on what they are thinking about differently...what new directions they are contemplating...and what new questions they now have. This can be followed with an individual writing time or conversation with others in the group.

Another similar strategy is to put an individual's question at the top of an 8-1/2 x 11 sheet of paper and create two columns, one for questions, one for comments. Ask group participants to write either a question or a comment about the group member's question, then pass it on to the next person until it goes around to everyone in the group.

6

Activities and Strategies

■ Action research requires that the researcher takes some conscious action in the context of daily practice and reflects on the results. While it sounds simple, the dance of questioning, acting, and reflecting is a complex art. It is supported and enriched by collaborative teamwork. The following pages contain ways in which the action research group can support dialogue about questions over time and provide structure and strategies for reflection.

Process Activities

Facilitators regularly plan activities to help participants develop a deeper understanding of their questions. At each meeting, some time is spent learning more about the action research process, or using a strategy to learn more about individual questions. The majority of the time, however, is spent with participants talking about their questions.

Facilitators often try to build in learning strategies that teachers can take back to their own classrooms and use with their students.

The following pages provide examples of some processes that facilitators can use with their groups.

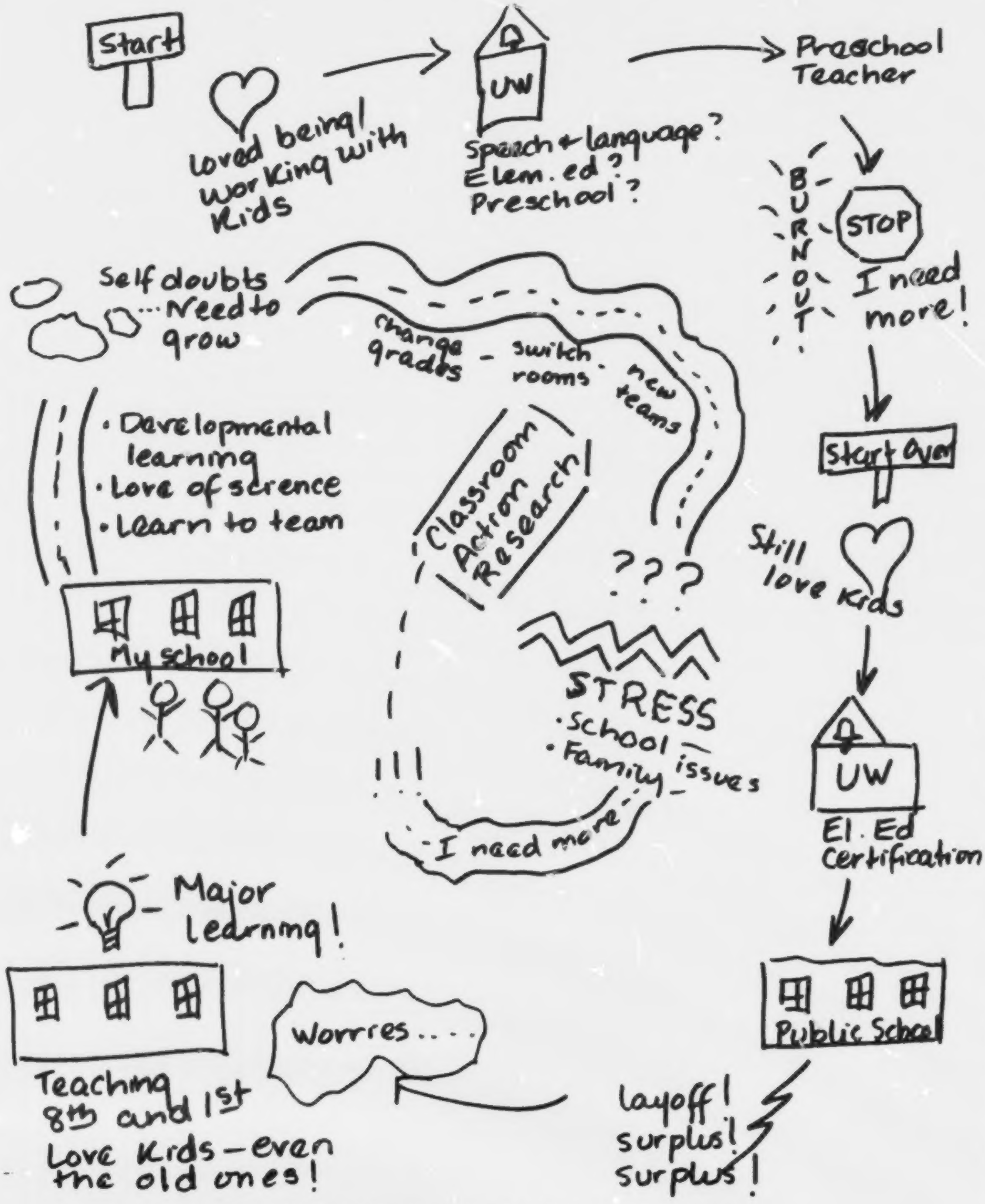
JOURNEY TO ACTION RESEARCH

Use this activity early on in the experience as an opportunity for participants to get to know each other better, or as a tool later in the process to help participants reflect on their work in progress.

Ask participants to draw their journeys to action research. Tell them to use any format which works for them: chronological, influential people, important events, challenges, etc. Use symbols to highlight key events and/or people in the story.

Take time to have each person share their visual journey. Are there common themes that surface from the group members?

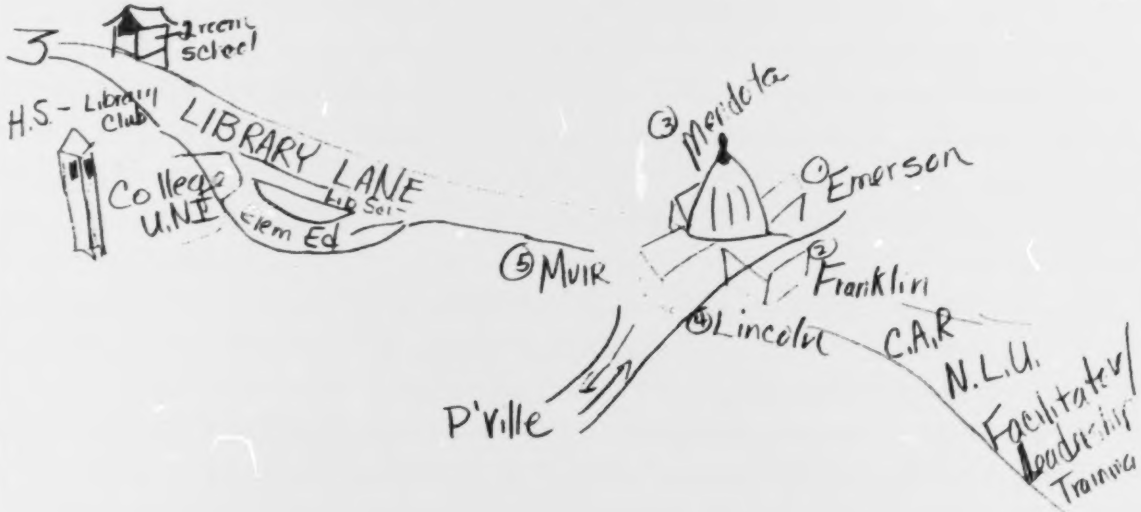
JOURNEY TO ACTION RESEARCH


Start
Loved being with working with Kids
UW
Speech + language?
Elem. ed?
Preschool?
Preschool Teacher
BURNOUT
STOP
I need more!
Start Over
Still love Kids
UW
El. Ed Certification
Public School
Layoff! surplus! surplus!
Worrres....
Teaching 8th and 1st
Love Kids—even the old ones!
Major learning!
My school
• Developmental learning
• Love of science
• Learn to team
Self doubts ...Need to grow
change grades - switch rooms - new teams
Classroom Action Research!
???
STRESS
• School
• Family
issues
I need more

Generated by one Madison Metropolitan School District Action Researcher.

"My Journey to Action Research"

As an introduction to each other as we began our journey into action research, we asked each member to create a graphic image of their journey to this point. They could then quickly take us along with them in their journey, selecting 2 or 3 items to discuss a little more thoroughly. Here is the initial example that I created:


3
Parent school
H.S. - Library Club
LIBRARY LANE
College U.N.I.
Lib Sci
Elem Ed
⑤ Muir
③ Mendota
① Emerson
② Franklin
④ Lincoln
P'ville
C.A.R
N.L.U.
Facilitator/ Leadership Training

Note: We have continued to use the theme of "journeying" as we go through the year, planning our agendas, etc. After all, C.A.R. is a trip! (Classroom Action Research)

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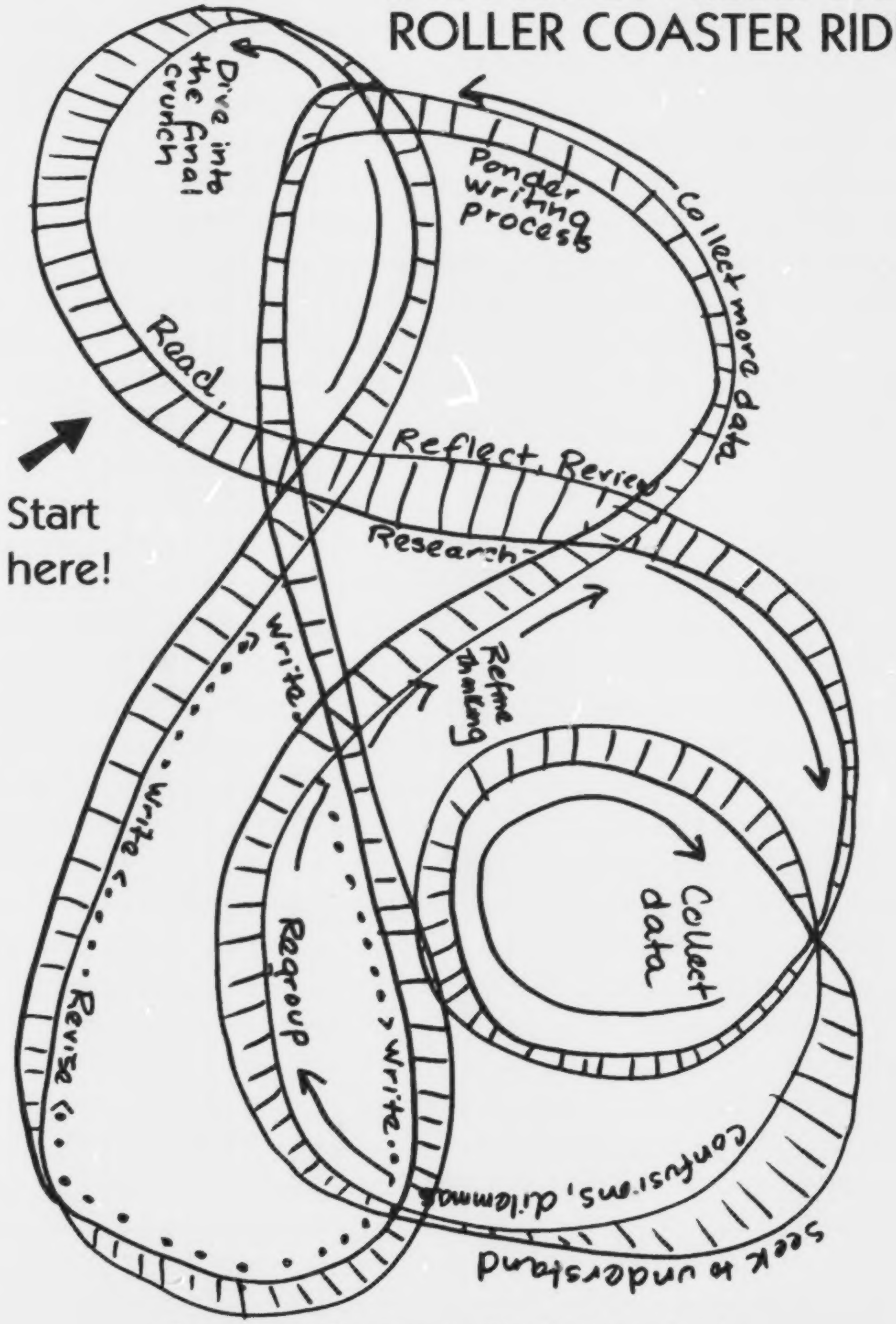
THE ACTION RESEARCH ROLLER COASTER RIDE


Start here!
Read,
Reflect, Review
Research
Drive into the final crunch
Ponder writing process
Collect more data
Refine thinking
Collect data
Write
Write...
Write...
Revise...
Revise...
Regroup
Write...
Confusions, dilemmas
Seek to understand

Generated by one Madison Metropolitan School District Action Researcher.

NOTE-TAKING GUIDE

Use the form on the next page for note-taking. At each meeting, when group members share, someone in the group take notes for them. The notes are collected by the leaders, copied for their files, and then returned to the person who shared. This strategy helps the group share the note-taking responsibilities. Participants say that this process allows them to really listen to what their colleagues are saying, and gives them the opportunity to think about their comments after the meeting when they review the notes.

Meeting Notes…

For ____________________

Date ____________________

Notetaker ____________________

Ideas that were shared	**Questions/Comments**

Comments from Facilitators

If you take nothing else from this handbook, pay attention to the next page. It is the most important one!!!

The person who is sharing the work needs to be doing the work.

- The most important role of participants is to be good listeners and to ask the group member, who is talking about his or her study/research, good questions. The intent of these questions should be to open up new possibilities and new ways of thinking for the person who is sharing.

- If you, as a group member, have suggestions, new ideas, or solutions to offer...wait. If you jump in with the strategies that you think will work, you are not giving your colleagues the opportunity to own and explore their situations deeply. This is hard, but with practice, it becomes easier.

Comments from Facilitators

Our job is not to come up with ten solutions for someone's question. It is to think of questions that we can ask that will help participants come up with solutions for themselves. We have to learn to be quiet and not make suggestions until a person has time to do his or her own thinking. This pushes the person to think more about the question and not leave the meeting with strategies that belong to someone else. It is really the key to becoming a thoughtful, reflective practitioner. Facilitators must model, model, model this behavior.

COLLABORATIVE FOCUSING QUESTION PROCESS

There are many different strategies to promote discussion about action research in the group setting.

What follows is a description of a process that many action research groups find very helpful. A participant takes on the role of chairperson and a recorder takes notes for the person presenting the work. The notes are then given to the presenter to help him/her move along through the action research process.

One of the key ideas in developing how action research will look in your setting is to design a process which meets the needs of your district and your participants.

Have fun creating!

Collaborative Focusing Question Process for Inquiry into Practice

The process and the notes are confidential to members of the group unless otherwise negotiated. Use a black pen and write clearly to save recopying before duplicating for the group.

Presenter: ____________________ Recorder: ____________________

Chairperson: ____________________ Date of Meeting: ____________________

Step 1. Restated question as it stands now:

Step 2. General update and information about collected data:

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NOTES: It is not necessary to use Step 2 for all questions. It is included here because sometimes the sharing is especially poignant or inspiring or difficult and participants feel the need to respond personally first before moving along in the formal process.

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Collaborative Focusing Question Process Format

Presenter: ______________________ Date: ________________

Step 3. Clarifying Questions

Summarizing comment or restatement of the focusing question:

NOTES:

- Group members ask the presenter questions, without implying judgment. The answers enable them to understand the situation well enough to offer suggestions that fit the presenter's real situation.
- Use questions as a way to understand, not as an indirect suggestion. If group members begin to ask questions such as, "Have you ever considered doing thus and so?", the chair may assess whether it is time to move on to the phase of the process for making suggestions.
- Before moving to suggestions, the chair, in conversation with the presenter, restates the focusing question in light of the clarifications which have been offered. The presenter may wish to reframe the question at this point, as the clarification process may alter the way in which the presenter now views the situation. It can be useful to summarize the information learned for the group.

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Collaborative Focusing Question Process Format

Presenter: ______________________________ Date: ______________________

Step 4. Suggestions and Comments by the Group:

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NOTES:

- Number and record the person and the suggestion, the method for applying and its rationale. (Other members of the group may want to revisit the suggestions for adapting to their own situations.)
- Make suggestions that address the presenter's focusing question and that are appropriate to the presenter's situation, way of working, and values held.
- Assume that every participant will have several suggestions to offer. Accept only one from a participant at a time, as lists tend to hinder the collaborative response. The purpose is to identify many possible strategies, opening up possibilities for everyone.
- The presenter refrains from commenting on any suggestion during this phase of the process. It is up to the presenter to reflect on the suggestions list at a later time before deciding how the suggestions can be adapted to his or her practice.

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Collaborative Focusing Question Process Format

Presenter: ______________________________ Date: ______________________

Step 5. Notes and Discussion Following the Formal Process:

NOTES: The process is incomplete until participants have the opportunity to discuss some of their thoughts, new ideas, research and/or teaching methods. This enables them to deepen their understanding and apply ideas to their own situations. It becomes an additional way for participants to share their best professional practices and expert knowledge, and learn new content, research and/or pedagogical knowledge according to their professional interests. The discussion may raise issues for further study by individuals and the whole group. It may take place informally during a break.

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Comments from Facilitators

Ask a lot of "why" questions.
Ask a lot of "how" questions.
Ask a lot of questions that make participants think more and talk more. Try to get them to think about what they are doing in the classroom. Ask a lot of questions to get them to say what they are saying in a different way. Synthesize what you hear participants saying. "This is what I think I heard you say..." Then listen very carefully to their response.

"Here is Edward Bear, coming downstairs now,
bump, bump, bump, on the back of his head,
behind Christopher Robin.
It is, as far as he knows,
the only way of coming downstairs,
but sometimes he feels there really is
another way,
if only he could stop bumping for a moment
and think of it."

From WINNIE-THE-POOH by A.A. Milne, illustrated by E.H. Shepard,
copyright 1926 by E.P. Dutton, renewed 1954 by A.A. Milne.
Used by permission of Dutton Children's Books, a division of Penguin Putnam Inc.

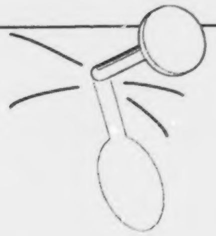
1. What are some other ways to think about your question? What perspectives might your students, parents, principal, or other teachers have?

2. How does Edward Bear's predicament relate to your own situation?

3. What is it that keeps you "coming downstairs" the way you always have? What would encourage you to come down another way?

Comments from Facilitators

It is probably the fourth or fifth meeting before the group actually starts asking each other really serious questions or deep probing questions about why they think the way they do about something, or why they took some action. When the group members get to the point of really asking hard questions, then people believe that they are being taken seriously. They know that they are being listened to when someone follows up with a clarifying or probing question. The whole quality of the conversation becomes richer and more meaningful.



Every student—
and educator, too—
needs a trusted
person who will ask
provocative questions
and offer helpful
critiques.

Reprinted with permission. Costa, A.L. & Kallick, B. (1993). "Through the lens of a critical friend." *Educational Leadership*, 51 (2), 49-51.

Comments from Facilitators

Having completed your own action research study impacts your ability to facilitate because you've been through the process. I call it "mucking." There's a part in the process where you just kind of muck through it. Tell the participants to get their wading boots on because this is the hard part. They reach the point of frustration. They can't find the right words for how they want to phrase their question; they can't get the data they need; or they decide to change their topic and go in a different direction. You can say, "Take a deep breath—you're going to make it!"

CAUSE-AND-EFFECT-DIAGRAM

Purpose:

Identify, Organize, and Analyze possible causes of problems or factors needed to improve a process or ensure success of some effort

Uses:

> Provides structure to brainstorming

> Leads to an understanding of problem (or effect) and possible contributing factors (or causes)

> Shows relationships between causal factors and the main cause

> Displays a lot of cause information in a compact space

> Documents possible causes to investigate and which are confirmed or eliminated

> Helps to decide where to collect useful data

CAUSE-AND-EFFECT-DIAGRAM

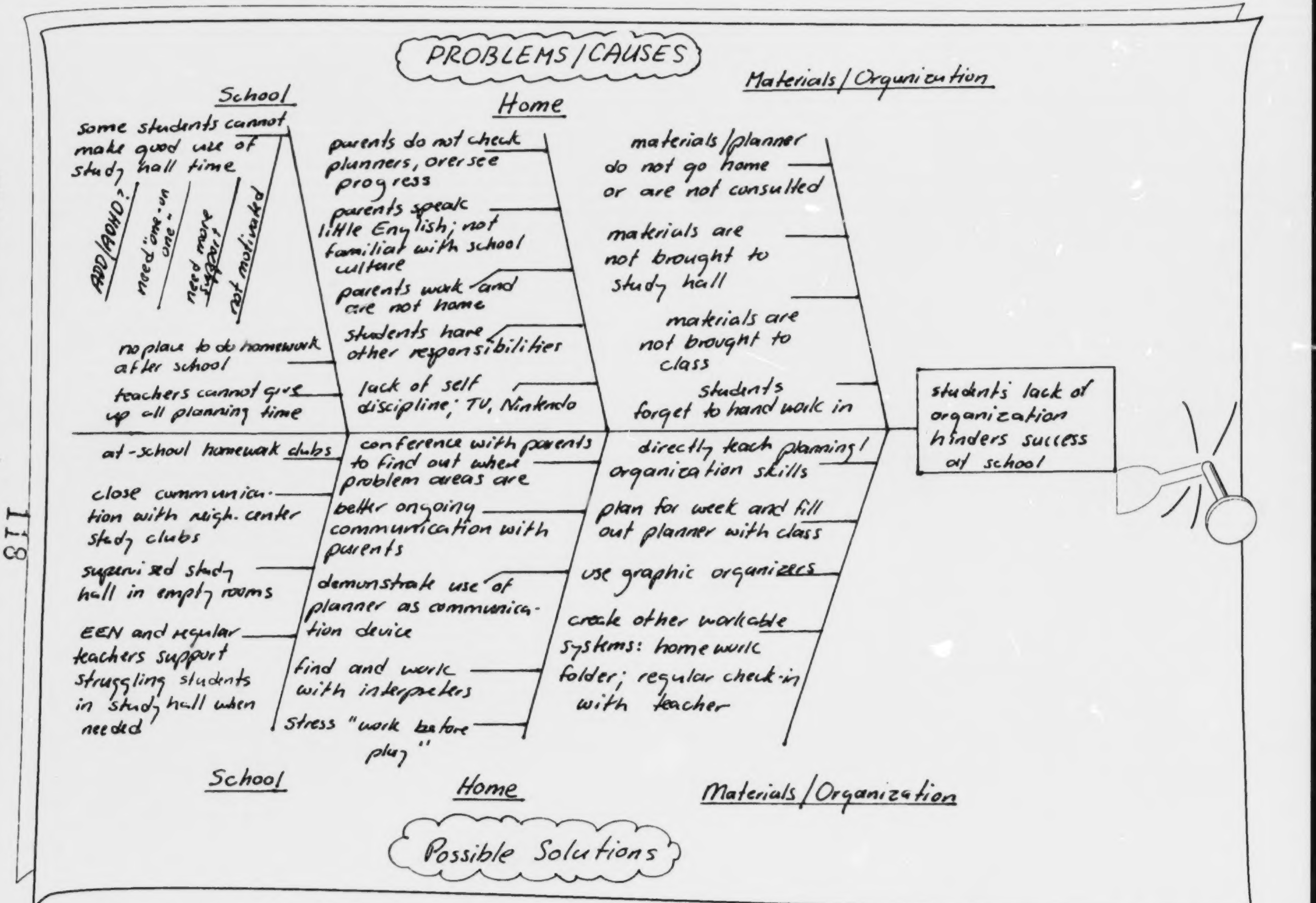
Development:

- Is best done by a team/group
- Helps team members understand the process or problem being studied
- Sorts ideas into useful categories
- Guides team's intuitive knowledge in identifying probable root causes of a problem
- Demonstrates the group's understanding. The more complex the diagram, the more sophisticated the participants are in their knowledge of the process or problem.
- Organizes brainstormed information to provide focus for discussion and identify areas in which to collect data
- Requires a focused and specific problem. Broad problems lead to diagrams that have too many items, are tedious to construct, are time-consuming, and are very difficult to verify with data.

CAUSE-AND-EFFECT-DIAGRAM

Process/Steps:

- Identify "problem" you want to improve.
- Write this problem phrase/statement on right side of a large piece of paper and draw a box around it.
- Draw a backbone from box to left.
- Generate the 4-6 most probable causes of the problem.
- Draw the main bones and label each with one of the probable causes. Categories often include Staff, Parents, Students, Policies, Equipment, Resources, Facilities, Methods, Environment, Assessment and Staff Development.
- Reflect on the main bones one at a time. Brainstorm all possible causes of problems in each category and write them along the bone. One strategy for reflection is to use the Five Why's Analysis: (see example on page 114)
    - Why does this happen?
    - Then, why does this happen?
    - Why is this a cause of this problem?
    - Why/in what way does this contribute to this problem?
    - Continue to ask "why" 3-5 times until you think you have gotten to the root causes and factors you can measure.
- After identifying the most likely causes, begin to think about how to collect data in these key areas.


PROBLEMS / CAUSES
School
Home
Materials / Organization
some students cannot make good use of study hall time
ADD/ADHD?
need one-on one
need more support
not motivated
no place to do homework after school
teachers cannot give up all planning time
parents do not check planners, oversee progress
parents speak little English; not familiar with school culture
parents work and are not home
students have other responsibilities
lack of self discipline; TV, Nintendo
materials / planner do not go home or are not consulted
materials are not brought to study hall
materials are not brought to class
students forget to hand work in
students' lack of organization hinders success at school
at-school homework clubs
close communication with neigh. center study clubs
supervised study hall in empty rooms
EEN and regular teachers support struggling students in study hall when needed
conference with parents to find out where problem areas are
better ongoing communication with parents
demonstrate use of planner as communication device
find and work with interpreters
stress "work before play"
directly teach planning / organization skills
plan for week and fill out planner with class
use graphic organizers
create other workable systems: homework folder; regular check-in with teacher
School
Home
Materials / Organization
Possible Solutions

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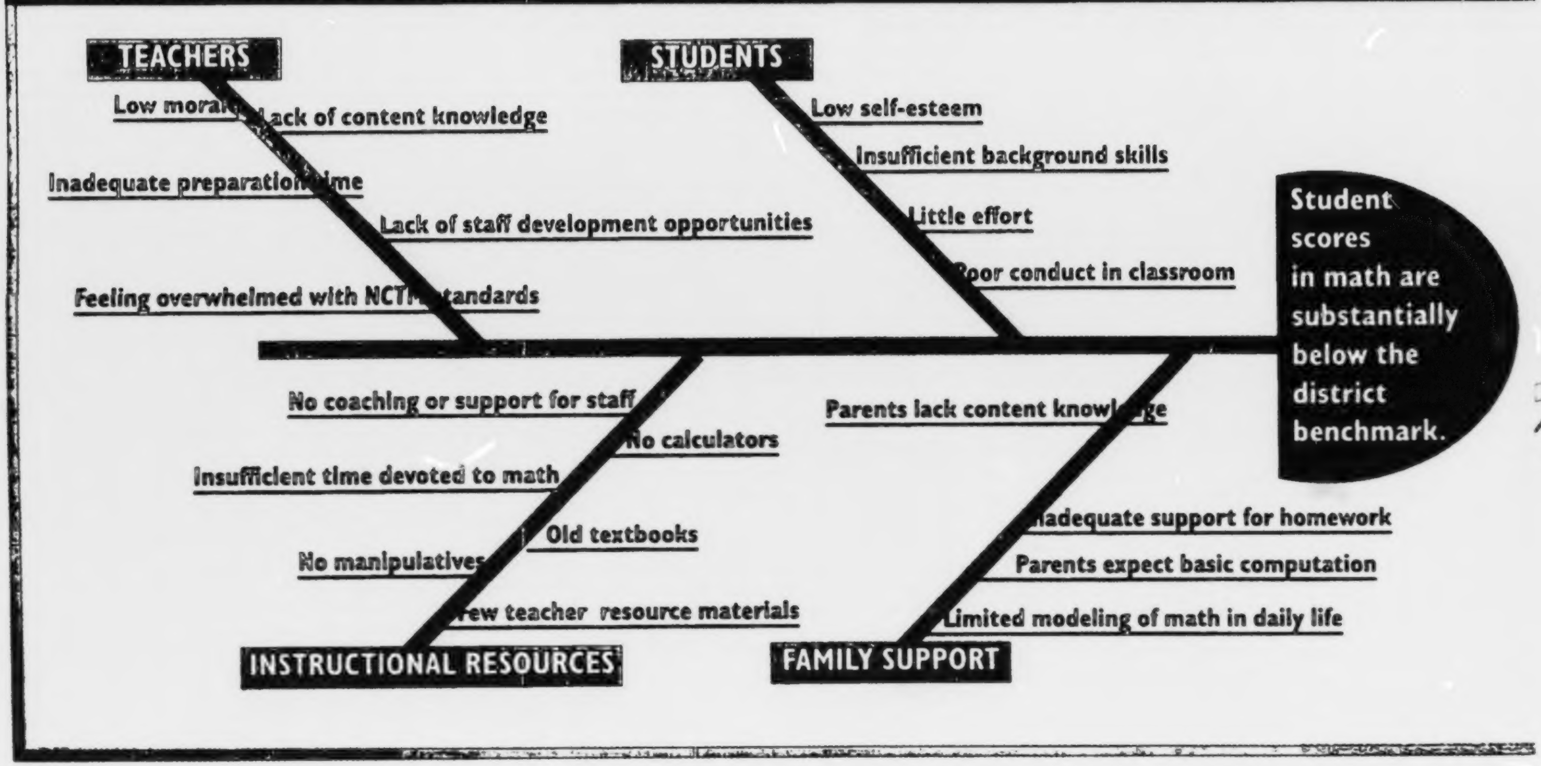
ISHIKAWA (FISHBONE) DIAGRAM


TEACHERS
Low morale
Lack of content knowledge
Inadequate preparation time
Lack of staff development opportunities
Feeling overwhelmed with NCTM standards
STUDENTS
Low self-esteem
Insufficient background skills
Little effort
Poor conduct in classroom
Student scores in math are substantially below the district benchmark.
No coaching or support for staff
No calculators
Insufficient time devoted to math
Old textbooks
No manipulatives
Few teacher resource materials
INSTRUCTIONAL RESOURCES
Parents lack content knowledge
Inadequate support for homework
Parents expect basic computation
Limited modeling of math in daily life
FAMILY SUPPORT

Reprinted with permission. Killion, J. (1998). "Data, then a decision" *Journal of Staff Development, 19 (2)*, 62-63.

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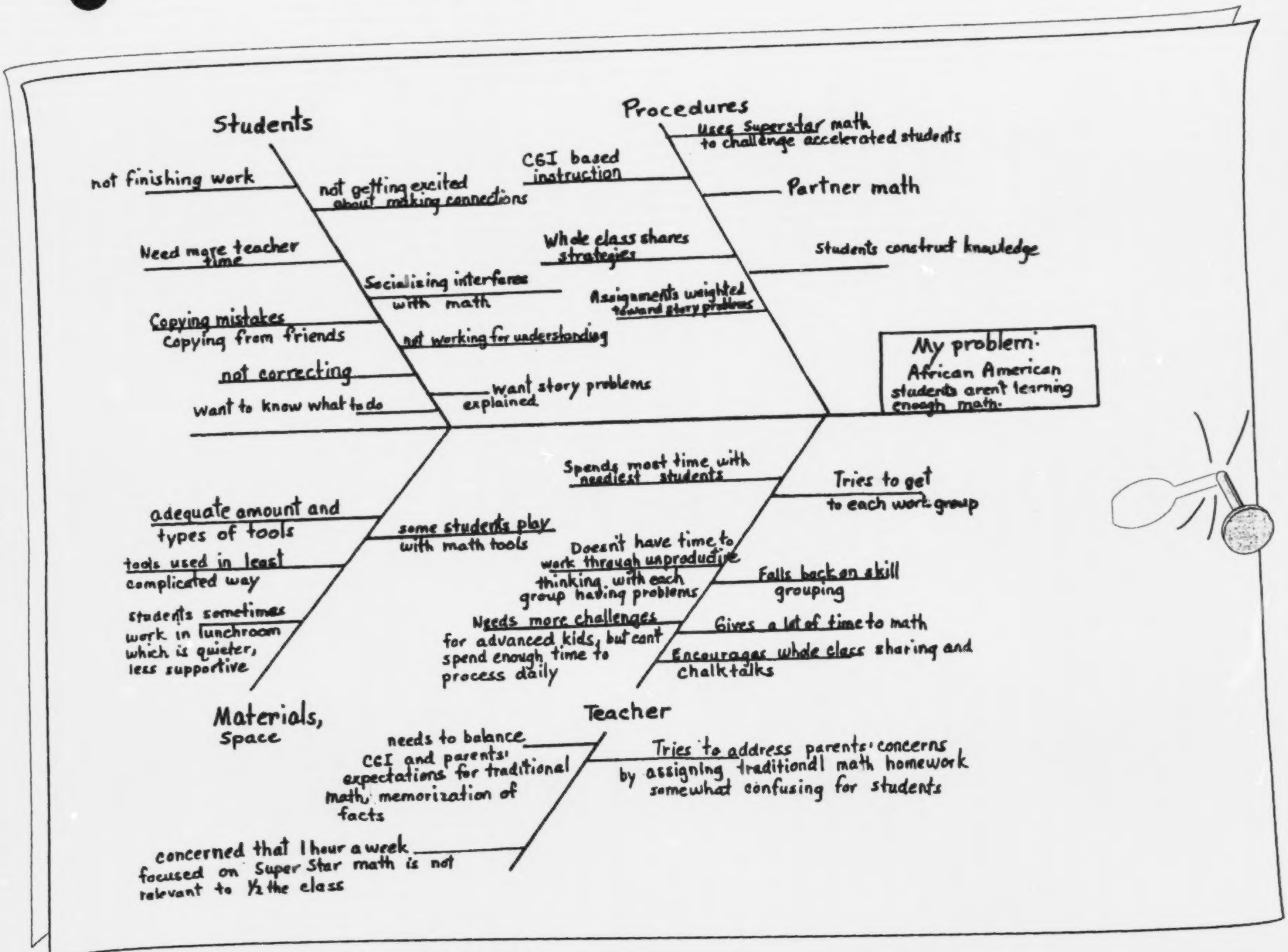
Students
not finishing work
Need more teacher time
Copying mistakes
Copying from friends
not correcting
want to know what to do
not getting excited about making connections
Socializing interferes with math
not working for understanding
want story problems explained
Procedures
Uses Superstar math to challenge accelerated students
CGI based instruction
Partner math
Whole class shares strategies
Students construct knowledge
Assignments weighted toward story problems
My problem: African American students aren't learning enough math.
Materials, Space
adequate amount and types of tools
tools used in least complicated way
students sometimes work in lunchroom which is quieter, less supportive
some students play with math tools
Teacher
Spends most time with neediest students
Tries to get to each work group
Doesn't have time to work through unproductive thinking with each group having problems
Falls back on skill grouping
Needs more challenges for advanced kids, but can't spend enough time to process daily
Gives a lot of time to math
Encourages whole class sharing and chalk talks
needs to balance CGI and parents' expectations for traditional math, memorization of facts
Tries to address parents' concerns by assigning traditional math homework somewhat confusing for students
concerned that 1 hour a week focused on Super Star math is not relevant to ½ the class

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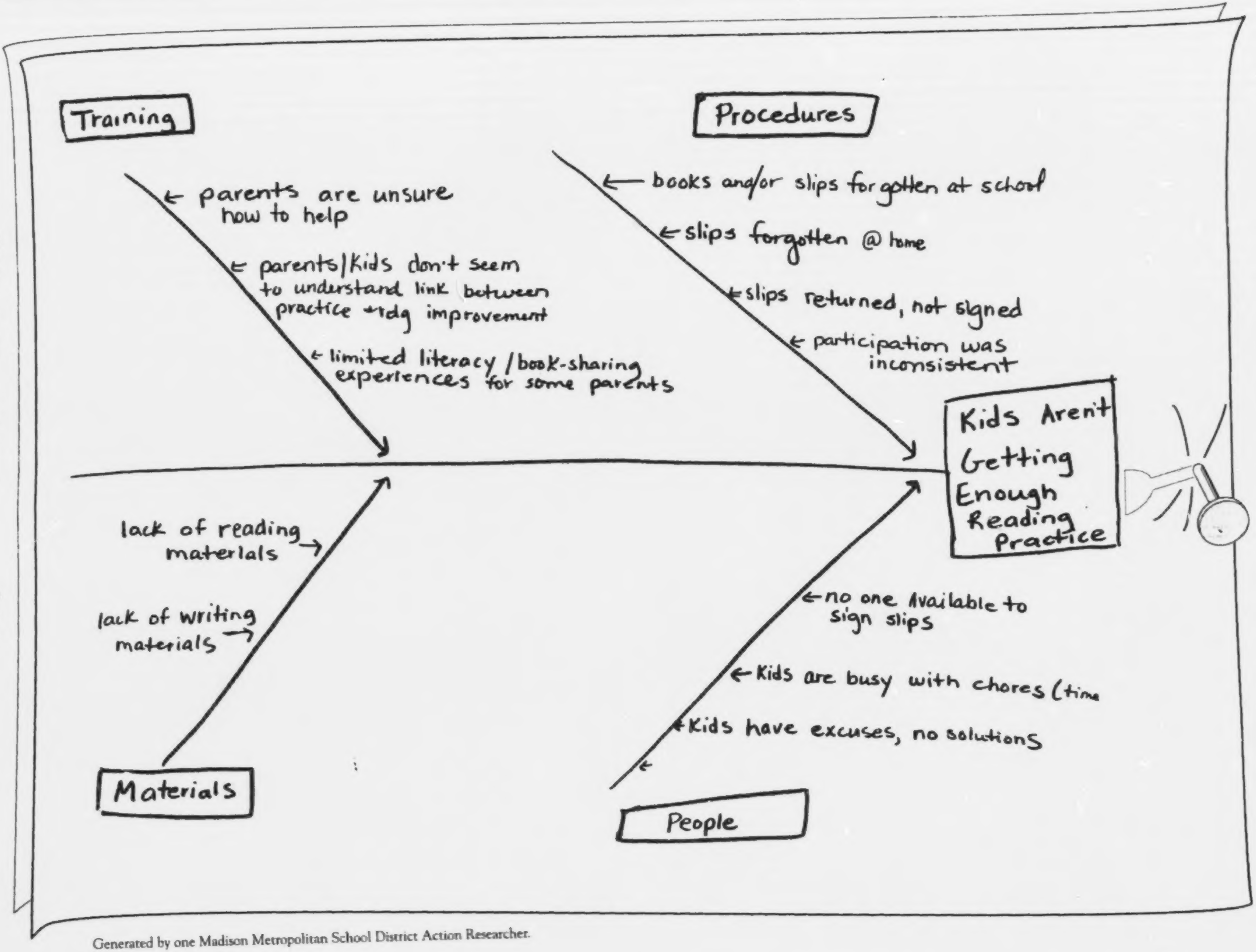
Training
Procedures
← parents are unsure how to help
← parents/Kids don't seem to understand link between practice + rdg improvement
← limited literacy /book-sharing experiences for some parents
← books and/or slips forgotten at school
← slips forgotten @ home
← slips returned, not signed
← participation was inconsistent
Kids Aren't Getting Enough Reading Practice
lack of reading materials →
lack of writing materials →
← no one Available to sign slips
← Kids are busy with chores (time
← Kids have excuses, no solutions
←
Materials
People

Generated by one Madison Metropolitan School District Action Researcher.

Five Why's Analysis

Five why's method:

- Encourages "mile deep" thinking
- Uncovers theories about deep causes of problems
- Identifies potential systems level causes of problems

Example

Problem: Students throw trash on school grounds.

1. *Why does this problem happen?*
   Students don't care about what they do with their trash.
2. *Why does this problem happen?*
   Students don't see the problems which result from throwing their trash on school grounds.
3. *Why does this problem happen?*
   Students are not involved in discussions with people who are responsible for maintaining the grounds or those who wish to see them clean.
4. *Why are they not involved in those discussions?*
   There is no vehicle set up for students and staff to discuss what is important about maintaining school grounds and how to address the problem.
5. *Why is there no vehicle for student and staff discussion of issues?*

ACTION RESEARCH AS COLLABORATION

Paired Interviewing:
Each teacher pairs up with a colleague, and they interview each other for a set period of time. Prompts may help get an informal discussion going or a consistent set of questions can be given to everyone, e.g. Why did you decide to participate in action research? What are you concerned about in your classroom? What are your expectations for this group? Responses can be recorded for the pair.

Pairing and Sharing:
Writing prompts can be given to group members (similar to above), and individuals can respond in their journals. After a period of time, the writing is exchanged with another teacher in the group and comments (either written or oral) are shared with each other. The large group may then decide to offer some perspectives.

Giving and Receiving Feedback:
The heart of action research is in the dialogue and inquiry which occurs so richly in the group. Recording the group's comments, either on paper or on tape, will allow the participant to revisit the session without feeling defensive, and to reflect on what was said at a different point in time.

Brainstorming:
This familiar strategy can be used to quickly generate a large number of ideas around a specific topic. Teachers put their individual questions on a sheet of flipchart paper. Other group members walk around the room and write down the questions they have about the individual question on each sheet.

Being Interviewed:
The teacher describes the research topic briefly and then responds to a series of four questions: 1. What has been your experience so far with this topic? 2. What do you think are its most important features? 3. What are your hunches at this stage? 4. What is the first step to take in investigating your topic? Another teacher in the group conducts and tapes the interview.

ACTION RESEARCH AS COLLABORATION (continued)

Periodic Conferencing:
A monthly conference between two action researchers can be a useful strategy to talk about the progress each one is making. The interviewer reflects, asks clarifying questions and tries to understand the nature of the work. Notes are kept and next steps are discussed.

Interactive Journal Writing:
A journal is kept by an individual who then shares it with another teacher. Regular responses are written back and forth and a rich dialogue develops.

Networking with Other Practitioners:
Connecting with retired teachers, teachers in other districts, preservice teachers, or any network of colleagues who can respond to the issues and questions being studied is a strategy which will add another dimension to the work.

Collecting Data with the Help of Colleagues:
Having students in a different class respond to questions a teacher is exploring; trying out a survey before you offer it in your own setting; and observing a colleague are all ways teachers can help out each other with data collection.

These ideas and strategies are gathered from the work of Burnaford, G., Fischer, J. & Hobson, D. (1996). *Teachers doing research: Practical possibilities*. Mahwah, N.J.: Elbaum Associates.

REFLECTING AND PLANNING

The ultimate goal of action research is to have teachers become more reflective about their practice, so they can understand why they make the choices they do on behalf of their students. On the following pages are some examples of activities which encourage teacher reflection over time.

The Action Research Timeline

Ask participants to indicate above the line (positive) or below the line (negative) their thoughts, feelings, and actions regarding their journey to this point. This timeline can be used as a springboard for discussion.

Action Research Over Time

Use this form as a strategy for action researchers to reflect on their thinking over time. Participants can fill in the open-ended statements at each meeting and reflect on them during writing time.

Action Plan Form

After participants have the beginning of a question and some ideas about gathering data, this helps focus their next steps. You can use this activity more than once during the year.

Action Research Timeline

⊕

August/September	October	November	December	January
Am feeling energized and excited about doing research in my classroom. I have so many things I'd like to examine – student facilitation of groups, integrating the math standards, learning with my EEN counterpart	I'm narrowing my focus. Now that I've had a chance to get to know my students, I can see that the regular ed/EEN cross-categorical questions will be crucial this year (as always!) Nonetheless, I'm still interested in collecting data about math, too...	I really like my group! Everyone listens to my meanderings and doubts, and they're gently nudging me to make my own decisions about things. By the same token, I feel like I've been able to help others think through their projects. I took my group's suggestion and have been writing during my students' daily journal time. It's only 15 minutes a day, but it adds up!	Finally have my question honed to a workable one. Data collection is going well. Students are interested in the project, and want to help out.	It's great to take time away from the classroom. I always come away inspired.
It's always hard to leave the classroom so early in the year, even if it's only for the morning.	It's been hard finding time to write down my observations of student interactions. There is so much going on, but hardly time to process or record. Help!	I'm so swamped with schoolwork, parent-teacher conferences, etc. I'm feeling really overwhelmed. Will I be able to do justice to my project?	I'm starting to amass a ton of data—what will I do with it all? I can't tell what will be useful in the end.	Didn't get much work done since the last meeting; will really need to get back into the swing of things. No excuses; the end of the year is coming!

⊖

Action Research Timeline

⊕

August/September	October	November	December	January

⊖

Action Research Over Time

DATE:

My question at this time is...

My biggest concern is...

One thing I am learning is...

My biggest struggle is...

DATE:

My question at this time is...

My biggest concern is...

One thing I am learning is...

My biggest struggle is...

DATE:

My question at this time is...

My biggest concern is...

One thing I am learning is...

My biggest struggle is...

Action Plan

Action Research Topic:

II. Question I am pursuing:

III. Steps which need to be taken:	By When	Person(s) Responsible	Resources/Support
A.			
B.			
C.			
D.			
E.			

Action Research Collaborative

Starting Planning

What aspect of my practice is of particular interest or concern to me right now?

What evidence would support me in making decisions about actions I might—-or might not—-choose to take?

Suggested Sources of Evidence:	**How and when gathered?**
Journals	
Observations over time	
Photographs	
Tape recordings	
Video recordings	
Transcripts	
Outside observer	
Interviews Students Parents Colleagues	
Portfolios	
Teaching/Lesson plans	
Shadow study of the involvement of one or two people	
Focusing Question Notes	

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NOTES: Indicate choices and add others to the back of this paper. At least two different sources are needed to give the triangulation of data necessary for a research project.

Tests for question: Is it something you really care about? Does it relate to the collaborative focus for change? Will the information or knowledge be useful? Will it make a difference to your practice?

Test for evidence: Is it natural to or non-obtrusive to your primary responsibility of teaching?

REFLECTING ON THE PROCESS

I. Worry Stones

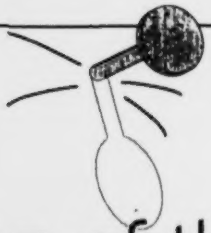
Go to a rock/gem store and purchase a collection of polished stones, imperfect, and not expensive. At the meeting, place these stones in the middle of the table. Participants select a stone and talk about their worries related to their action research question, or about a concern they have given up since the beginning of the year. Teachers usually keep the stone on their desk at school to remind them of the work they are doing.

II. Photographs

Purchase black and white photograph greeting cards with a variety of expressions and place them in the center of the table at a group meeting. People in the group select a picture which represents how they are feeling about their question at this point in time. You can purchase duplicate copies of the cards and ask people to pair up with the person who picked the same photograph. They then talk about why they chose that card.

Comments from Facilitators

Collect feedback from the group consistently and often. Facilitators need to know both the concerns of the group members and what is going well. Use the information to help you with your planning, and to respond to individual issues. Start the meetings with a summary of what you learned from the feedback. This models an effective communication strategy. The following pages are examples of feedback handouts and strategies used by facilitators.



Beginning of the Year

1. What are you most concerned about as you embark on your journey with action research?

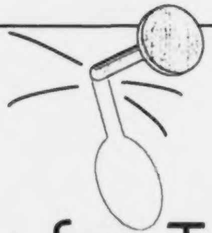
2. What are you most excited about with this process? What are your hopes...expectations?

3. What in your professional practice and experience influenced you to pursue action research?

4. What are your goals at this point for action research?

5. What have you told others about action research?

Your Name ______________________________ Date ______________



Thoughts for Today...

1. What has been your most important insight today?

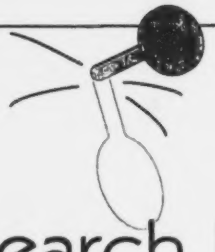
2. What is perplexing or concerning you after today?

3. What do you want to talk about in the future?

4. Any other thoughts or comments?

THANKS!

Name ___________________________________



Action Research Feedback

1. My biggest surprise about action research is...

2. One thing which concerns me about my action research is...

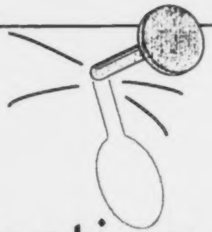
3. One thing I have learned about myself in this process is...

4. One thing I have learned about being part of this group is...

5. Three words which describe my action research are...

6. One thing you need to know at this stage is...

Name (optional) ______________________________



Reflecting on Action Research - May

In answering these questions, please consider how Action Research was organized, topics covered, schedule of meetings, workload, and the group process, as well as your own inquiry and reflection.

1. What about the action research experience was positive for you?

2. What do you wish had been different?

3. What advice do you have for the facilitators of action research that would help with future groups?

4. What have you learned from doing your action research?

5. What benefits has your action research project had—or will have—for your students, staff, or colleagues?

Reflecting on Action Research - May

6. What advice would you give someone starting action research?

7. How will action research influence you in the future?

8. What ideas do you have for sharing your action research with others? What audiences would be most interested in your work?

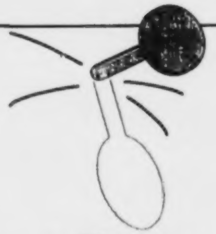
9. What kind of support will help you continue to think about and work on your action research question(s) in the future?

10. Other comments

7

Data

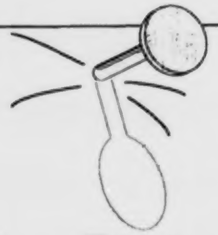
Focused reflection on conscious action will result in valuable information. Understanding how to use that information to inform practice is the next step in the action research process. This section provides strategies to develop a deeper understanding of the uses of data, selecting the data to be collected using multiple sources and strategies, incorporating data collection into the context of classroom work, and finally, analyzing results.



Guidelines for Data Collection

Asking the right questions is the key skill in effective data collection.

- Be clear as to why you are collecting data. Formulate good questions that relate to the specific information needs of the project.
- Be clear about how you are going to use the data you collect.
- Design a process to collect data. Our beliefs and values affect this selection process.
- Use the appropriate data analysis tools and be certain the necessary data are being collected. The data:
    - ✔ must be accurate;
    - ✔ should be useful;
    - ✔ must not be too time consuming; and
    - ✔ must be reliable enough to allow you to formulate hypotheses and develop strategies with confidence.
- Decide how much data is needed. Ask:
    - ✔ what is an accurate sample size?
    - ✔ for how long should the data be collected?
- Make sure that the data make your job easier.
- Use multiple sources of data to increase the believability of the findings. Collect data from more than two sources or points of view, each which provides a unique justification with respect to relevant information about the situation.
- Present the data in a way that clearly communicates the answer to the question.
- Be aware that how you set up the situation influences the results.



Guidelines for Data Collection

- Review the data. Ask:
    - ✔ do the data tell you what you intended?
    - ✔ can you display the data as you intended?
- Do not expect too much from data. Remember:
    - ✔ data should indicate the answer to the question asked during the design of the collection process.
    - ✔ you do not make inferences from the data that the data will not support.
    - ✔ data don't stand alone. It's the meaning we apply to the data that is critical. "Data do not drive decisions; people do."
    - ✔ the stronger the disagreements with the data, the bigger the learning potential. It is important to validate the different views and try to come up with a world view.
- Visually display the data in a format that can reveal underlying patterns.
    - ✔ Look for patterns related to time or sequence as well as patterns related to differences in staff and other factors.
- Remember that your primary job is not data collection. No research method should interfere with your primary job.
- While good information is always based on data (the facts), simply collecting data does not necessarily ensure that you will have useful information.
- The key issue is not how do we collect data, but how do we generate useful information?

Criteria for Selection Techniques

- Is it one that you can do?
- Does it suit the question you have in mind?
- Does it point to action you can take?
- Would a null response have an effect on your question?
- Will a different technique provide more appropriate data for your question?
- Was the initial question general? or specific?
- How soon will the technique yield information?
- How applicable are the data?
- Can you maihtain this type of monitoring over time?
- Can you afford the time to gather, record, and reflect using this technique?
- Are there physical implications of your technique? (space, equipment)
- Is the technique useful for group reflection? for personal reflection?
- Has the technique the potential to become "second nature" in your daily routine?
- Will there be political effects of gathering these data in your classroom, in your department, in your school, or in your community?
- Is there personal risk of data gathering to you? to others?

Data Collection: The 5 W's and an H

WHY are we collecting this data?
- What are we hoping to learn from the data?
- What are you hoping to learn from using this particular data collection strategy?
- Is there a match between what we hope to learn and the method we chose?

WHAT exactly are we collecting?
- What different sources of data will allow us to learn best about this topic?
- What previously existing data can we use?
- How much data do we need to really learn about this topic?

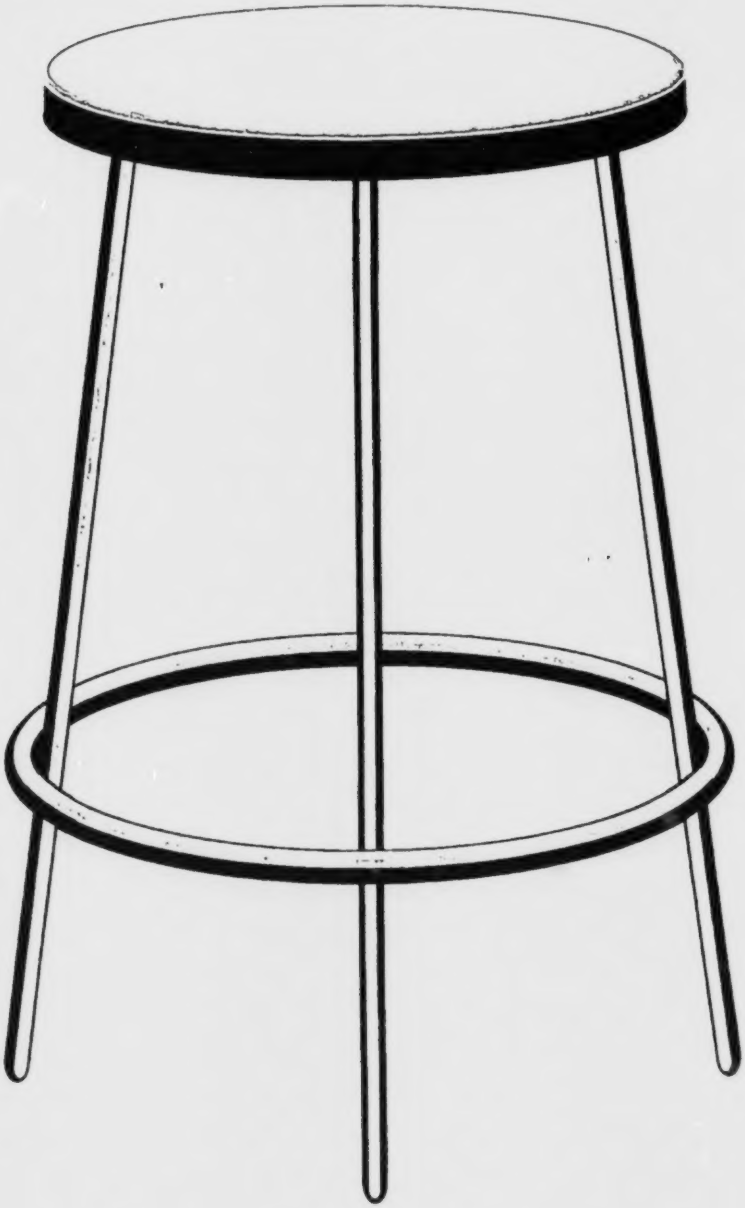
WHERE will we collect the data?
- Are there any limitations to collecting the data?
- What support systems need to be in place to allow for the data collection to occur?
- Are there ways to build data collection into the normal activities of the classroom?

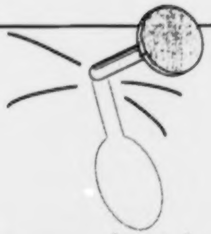
WHEN are we going to collect the data and for how long?
- Have we built into the plan collecting data at more than one point in time?
- Are there strategies we can use to easily observe and record data during class?
- Can you afford the time to gather and record data using the strategies you have selected?

WHO is going to collect the data?
- Are there data which can be generated by students?
- Is there a colleague who can observe in your room or a student teacher who can assist with data collection?
- What can you do yourself without it being too overwhelming?

HOW will data be collected and displayed?
- How will you collect and display the qualitative data? the quantitative data?
- What plan do you have for analyzing the data?
- To whom will you present what you have learned?

Triangulation





Triangulation

Just as a stool is most solid sitting on a foundation of three legs, your data will be more solid and give you more information if you collect it from more than one source, at more than one point in time.

For example...

You might want to look at your question by surveying the parents in your class, by interviewing staff, and by observing your students. You might also consider doing this in the fall, winter, and spring.

Another strategy is to gather data from three different perspectives, using the same mode of data collection, e.g. interviews.

Triangulation Grid

Question/Focus	Data Source #1	Data Source #2	Data Source #3

DATA COLLECTION I

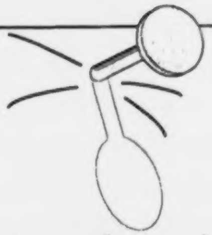
As a way to help participants become more familiar with data collection strategies and processes, give each person a report from a past action researcher. Ask them to individually read the report looking specifically for data collection strategies used by the researcher. Then have each person share in a small group what they learned, and what they are thinking about differently having read this report.

Another strategy is to have participants review two or three studies which are related to their topic and discuss what new ideas emerge from digging into the work of others.

We have also used this strategy as people are first developing questions and when they are analyzing data. Looking at the work of colleagues becomes a mirror for their own study.

Comments from Facilitators

Encourage people to start collecting data on their topic right at the beginning of the year, even if they haven't figured out their question. Sometimes—actually often— a question will emerge from the data. Participants might start writing down their observations in their journals, or give their students a survey, so that they don't lose valuable information on their topic. Participants always say that they are happy to have collected the data, because as the year goes by, they cannot remember what happened way back at the beginning of the school year.



Getting started with data...

Think about the kinds of evidence you have that convince you that something is or is not working.

> What data do I currently have about my students?

> What feedback do I have from parents and others which will influence my thinking?

> Where are the gaps with my students?

> What do I want to record now to be sure that I don't forget later?

ANALYZING STUDENT WORK

One framework for collecting data is to go deeply examining the work of one student. The process described on the following page describes a framework which puts the student's work at the center.

The analysis questions are designed to lead to possible next steps which support the instructional needs of the student.

Try this process with one student. Try it with another. What have you learned from your experiences?

Analysis of a Student's Work

1. **Description of Student**
   Pick a student whom you would like to study. Write a description of all of the relevant characteristics of the student: learning style, interests, strengths, age, gender, and other important information.

2. **Interpretation of Student Work Sample**
   Analyze the relationship between what you did as a teacher, and the student's performance on each work sample. Begin by picking a piece of student work that illustrates his/her performance in the target learning area. Use the following questions to guide your analysis.

   A. Action/Instruction
   - What learning objectives/results (skills, knowledge, attitudes) were you hoping to observe in this piece of work? What were your reasons for selecting this objective?
   - What learning experiences did this student engage in prior to producing this work?
   - Under what conditions was this work generated, e.g. directions, group size?

   B. Observation
   - What do you see in the student's work? (use only descriptive words, withhold judgment)

   C. Analysis/Interpretation
   - Subject Matter:
     - > What does this piece of work tell you about the student?
     - > What does the student know?
     - > What can the student do?
     - > What is the student like?
     - > Where are the gaps in the student's understanding?
     - > What does this tell me about how the student learns?
   - Instruction:
     - > What does this piece of work tell you about your approach to developing this area of student learning?
     - > How successful has this instruction been with this student?
   - Context:
     - > What factors in or outside the classroom may have influenced the student's performance? e.g. illness, playground conflict, family issues, etc.

What will you consider doing next? Why?

Action Research:
Techniques for Gathering Data

- > **Interviews** - with students, parents, teachers
- > **Checklists** - of skills, behaviors, abilities, movement, procedures, interactions, resources
- > **Portfolios** - of a range of work from students of different abilities around a particular topic; a representation of a total experience; a collection of documents for analysis.
- > **Individual Files** - of students' work, e.g. tapes, samples of work, art work, memos, photos of models/projects, reports; of students' opinions; of student attitudes; of students' experiences
- > **Diaries/Journals** - written by teachers, students, parents, class groups, teachers
- > **Field Notes/Observation Records** - informal notes written by a teacher
- > **Logs** - of meetings, lessons, excursions, school expectations, materials used
- > **Student-Teacher Discussion/Interaction** - records of comments and thoughts generated by students
- > **Questionnaires** - of attitudes, opinions, preferences, information
- > **Audiotapes** - of meetings, discussions in class or about data gathered, games, group work, interviews, whole class groups, monologues, readings, lectures, demonstrations
- > **Videotapes** - of classrooms, lessons, groups, demonstrations, a day in a school, lunch times
- > **Still Photography** - of groups working, classrooms, faces, particular students over time, at fixed intervals in a lesson
- > **Time-On-Task Analysis** - of students, teachers; over a lesson, a day, a week
- > **Case Study** - a comprehensive picture/study of a student or a group of students

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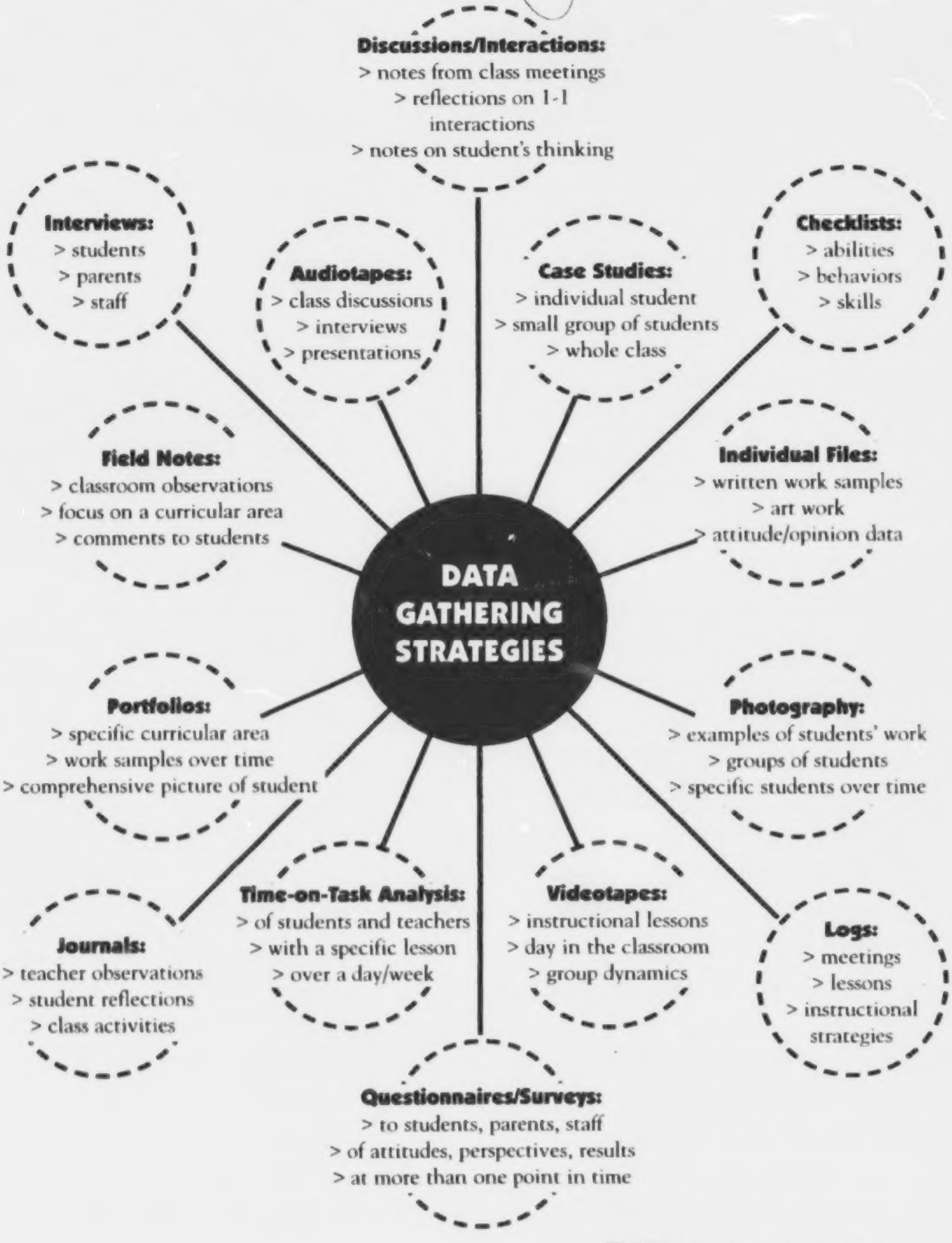
Observation Methods for Action Research Projects



Discussions/Interactions:
- notes from class meetings
- reflections on 1-1 interactions
- notes on student's thinking

Interviews:
- students
- parents
- staff

Audiotapes:
- class discussions
- interviews
- presentations

Case Studies:
- individual student
- small group of students
- whole class

Checklists:
- abilities
- behaviors
- skills

Field Notes:
- classroom observations
- focus on a curricular area
- comments to students

DATA GATHERING STRATEGIES

Individual Files:
- written work samples
- art work
- attitude/opinion data

Portfolios:
- specific curricular area
- work samples over time
- comprehensive picture of student

Photography:
- examples of students' work
- groups of students
- specific students over time

Time-on-Task Analysis:
- of students and teachers
- with a specific lesson
- over a day/week

Videotapes:
- instructional lessons
- day in the classroom
- group dynamics

Journals:
- teacher observations
- student reflections
- class activities

Logs:
- meetings
- lessons
- instructional strategies

Questionnaires/Surveys:
- to students, parents, staff
- of attitudes, perspectives, results
- at more than one point in time

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DATA COLLECTION II

Choose one person's question. Ask the group to generate possible data collection strategies which that person might use.

Ask the teacher researcher to reflect on the suggestions and indicate which strategies are of interest.

Break into small groups and brainstorm strategies with the rest of the participants' questions.

Comments from Facilitators

It is so hard not to make judgments about what you are observing. Tell people in your groups to just write down what they are seeing and hearing, and try to stay away from analyzing or making judgments while they are collecting data. Remind them not to make assumptions about what they will be observing before they collect data. This could influence their observations. Participants are often surprised with how helpful this way of thinking is and how much richer their descriptions are if they just focus on the details. Teachers also say that their data is much more believable if they focus on what they are seeing and hearing.

DESCRIPTIVE VS. INTERPRETIVE DATA

As action researchers begin to collect data, there is a tendency to merge interpretation and evaluation of what is being observed with the description.

Give participants the opportunity to practice observing, using videos of classrooms. Have some participants in the group record descriptive comments. Ask others to record both descriptive and evaluative comments.

What are the differences? What is the importance of keeping descriptive data separate from the analysis?

Teachers will probably point out that the conclusions they eventually will reach will be of greater value if the data they collect is of a descriptive nature, and that the analysis is added later.

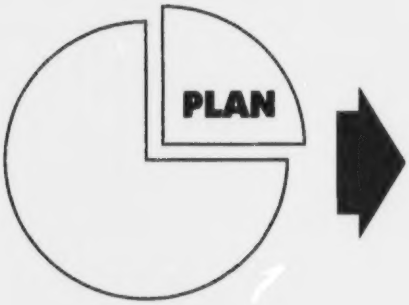
Observations

Descriptive Behaviors	**Evaluative Comments**

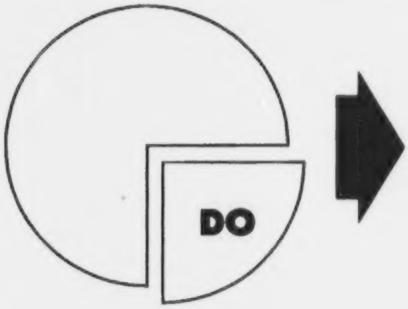
Comments from Facilitators

As participants become more comfortable with the idea of collecting data in their classrooms, we try to model asking questions to help them think more deeply about their data. "Will the data you propose to collect provide insight on your question?" "What might change based on what you learned from your data?" "What would happen if you used a different kind of assessment?" "How do you think parents might respond to your question?" These questions serve to sharpen the thinking of the researcher and gradually, other participants begin asking really thoughtful questions.

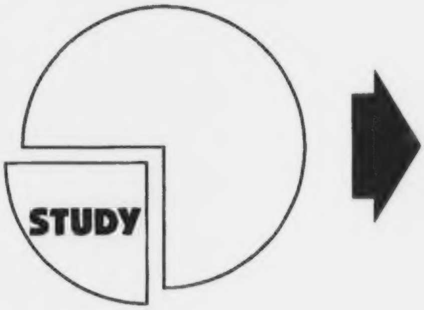
The Uses of Data in the Plan-Do-Study-Act Cycle



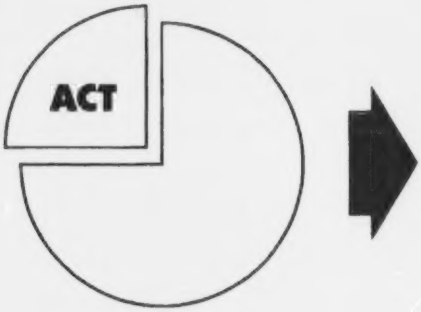
Review and summarize the data available from all sources. Analyze and identify major themes. Determine the data sources and measurement strategies that will assist in measuring progress toward improvement.



Collect the data. Consider a pilot or trial to be certain that the measurement strategies will meet your needs.



Analyze the data collected and draw conclusions.



Identify additional questions raised by the data and plan for additional improvements.

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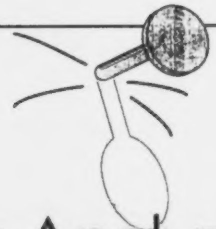
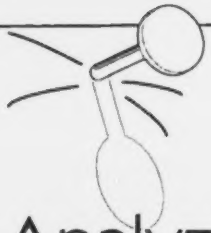


Guidelines for Analyzing Your Data

- Design a systematic approach to analyze your data. This may develop as you become more comfortable with what you are learning.
- Do not be afraid to let the data influence what you are learning as you go deeper with your analysis.
- Look for themes and patterns to emerge. Look for those unique ideas that you had not considered which may influence your thinking.
- Make sure that you are organizing your data based on what you are actually learning from the data, not on the assumptions you bring with you to your analysis.
- Don't censor the data, even if you don't like what you are learning. Include data that doesn't necessarily reflect change or growth. All of this is part of the learning experience and can still inform our practice.
- Go through your data several times. New ideas will occur to you with a fresh perspective.
- Think about creating visual images of what you are learning. A grid, an idea map, a chart, or some visual metaphor are all possibilities to help make sense of the data and display a powerful representation of your ideas.
- Write lots of notes to yourself (post-its work well) as you are sorting. This kind of reflection will help you as you step back and try to look at the big picture.
- Share your findings with a colleague. Do new questions emerge from this discussion?
- Let the data influence you. Jot down ideas for actions you will take as a result of what you are learning.



A Process for Analyzing Your Data

In using qualitative research, you will be collecting and analyzing at the same time. These processes inform each other. Be open to new ways of thinking as you learn more from your data. A format for recording what you are learning is on the following page.

1. Go through everything you have collected. Make notes as you go.
2. Look for themes, patterns, big ideas. Key words and phrases can trigger themes. Determine these themes by your scan of the data, not on your preconceived ideas of what you think the categories are.
3. Narrow the themes down to something manageable. (3-5 of your most compelling and interesting)
4. Go back through all of your data and code or label information according to the themes in order to organize your ideas. Some ideas may fit into more than one theme. Create sub-groups under each theme.
5. Write continuously. Jot down what you are seeing, what questions are emerging, and what you are learning. Keep notes on those new ideas which are unanticipated. These may be findings or surprises which you had not planned.
6. Review your information after it is coded/labeled to see if there is
   - a frequency of certain items and/or
   - powerful, interesting, unusual comments or behaviors which are of particular interest to you. This may be an incident which gives you a new insight, and it may be one of the most important to hold on to.
7. Identify the main points which appear most frequently and are the most powerful. It will be hard to let go of some of your information, but it is important to sift through it.
8. Write up your major points. You can write them up by
   - theme,
   - chronologically, or
   - the different modes you used for collecting information.
9. Draw the information together to include some of the evidence which supports each of your themes. The reader should be able to draw conclusions based on the evidence you have presented.

Data Summary

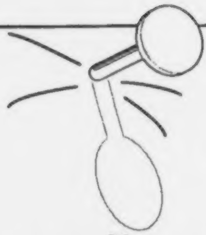
What I have learned: ____________________

____

____

____

Data Source #1	**Data Source #2**	**Data Source #3**



Analysis Leading to Action

Now that you have analyzed your data...

- What have you learned?
- How do you feel about what you have learned?
- How do your conclusions differ from what you thought you would learn?
- Do the conclusions seem believable?
- What actions might you take based on your conclusions?
- What new questions emerge for you from the data?
- Who else might be interested in these conclusions?
- What are strategies to share your conclusions with others?

8

Writing about Action Research

■ Writing is an integral part of the action reseach process. It is a vehicle to record thoughts, actions, and reactions as the process unfolds. It is a tool to support systematic reflection resulting in data that may be collected and analyzed. Finally, it summarizes each teacher's journey so that others may learn. Some teachers find written expression a natural extension of the reflective process they are experiencing. Others benefit greatly from the ideas collected here to build writing into the action research experience and record the experience into a final written report.

THE WRITING PROCESS

Writing consistently, over time, helps build the reflection skills of participants. Plan a time at each meeting for participants to write in their journals. Prompts can be given to assist people in focusing on their work.

Build this activity into the agenda to communicate the importance of teachers writing about their work. Don't just save it to do if there is time.

Plan strategies to share the writing (pairs, small groups, the whole group).

If many opportunities are created for teachers to write, the experience will inevitably build their confidence as writers and give them a rich collection of work to reflect on over time.

Comments from Facilitators

The importance of writing throughout the action research process cannot be under-estimated. Writing scares many teachers because they haven't written thoughtful, professional papers since college days. So, write, write, write! At every meeting carve out time for writing. Writing used to be at the end of the meeting, if there was time. Now it is put close to the beginning. Provide a prompt for those who want to use it. Have people read what they've written aloud—first with a partner, then to the whole group. Really try to help teachers feel comfortable with who they are as writers.

Barriers to Writing and Strategies Facilitators Can Use to Overcome Them

TIME	> Give teachers time to write during meetings. > Provide additional time away from the classroom to do their action research writing.
COMPLEXITY OF THE WORK	> Encourage teachers to keep a journal; look for themes. > Have them ask for help from their colleagues in the group. > Narrow the topic; break it down into smaller chunks. They don't have to write about everything.
FEAR	> Build trust within the group. Create the environment which allows people to talk about their fears. > Practice writing and reading aloud throughout the year. Collaborate on some work. Build confidence over time.
GENERALIZABILITY	> Write a case study. > Focus on the individual's context and the impact on the individual teacher. Try to draw connections to the larger context when appropriate.

Reprinted with permission. Adapted from Barth, R. (1982). *Writing about practice*. In T. Amabile and M. Stubbs (eds), *Psychological research in the classroom*, (pp. 186-200), Pergman Press.

Writing Tips for Struggling Writers

- **Establish a Writing Routine—A Little Every Day**

Consistency in routine enables teachers to complete their writing projects. Writing and thinking a little bit each day about the research is the teacher's way of taking control of the research project and whipping it into shape. You can never feel truly in control of all the information and possible findings. Daily writing will at least make you feel as though you are managing the task.

- **To Jump Start, Temporarily Lower Your Standards**

Researchers need to follow William Stafford's advice to "lower their standards." Unrealistic standards breed procrastination. You are not alone; almost everyone procrastinates. Many researchers aren't lazy—they are just unrealistic. What is in your head will always be more eloquent than what lands on the page. The frustration of producing words on the page that is not up to the quality of the words in our heads makes many researchers avoid producing work. It also fosters last-minute work. The concept of lowering standards to write is a paradox. If you don't lower your standards, nothing will land on the page. If you do not write, you will not improve. By lowering your standards, you do get a draft, however ill-formed, on the page. You then have something to revise, and revise again. The process of improving writing cannot begin until something lands on the page.

- **Set Deadlines**

The critical element in establishing a routine is to build deadlines into your work. Some of these deadlines may turn out to be imposed for you— a date when a conference proposal is due, the day when you must present your research to colleagues, or the month when your group begins peer editing. You will have more success meeting these big deadlines if you impose and meet smaller deadlines in you work. Set a date to send a research memo to a friend, or to present a rough sketch of findings to colleagues over lunch...and stick to it.

- **Overcome Writer's Block**

Every teacher researcher has both psychological and pragmatic constraints in getting the work done. The psychological constraints include the "devils on your shoulder" who try to convince you that you have little to say and that you will not be able to say it well anyway. Ignore them. Some people believe that the benefits of teacher research and the knowledge gained from it are primarily for the teacher completing the research. We disagree. Teacher research can enrich your professional life immeasurably, but learning for yourself isn't enough. If you have discovered something that can help other teachers work with their students, you have an obligation as a professional to share it. Teachers are eager for this knowledge. If you start with the understanding that there are teachers who want to know what you have learned, it will be easier to face the blank page.

- **Make Time for Writing**

Pragmatic constraints in getting the work done include the clothes that have to be washed, the kids that have to be carpooled, the garden that needs tending. There are times particularly at the end of a research project when closure is needed. This requires a shift in priorities and occasionally ignoring practical routines so that the writing can get done.

Reprinted with permission. Excerpted from Hubbard, R.S. & Power, B.M.
The art of classroom inquiry: A handbook for teacher-researchers. Heinemann, 1993.

Beginning of the year writing...

Writing about what is most familiar is a good beginning for participants. The following questions are starting points.

- What does my classroom/school look like?
- What does my team look like? (skills, interests, expertise)
- What is the nature of my school community?
- What needs do I see in my classroom and school?
- What data do I currently have about my students?
- What feedback do I have from parents and others which will influence my thinking?
- Where are the gaps?
- What do I want to make sure I record so that I won't forget it later?

Writing Prompts for Classroom Action Researchers

by Robin Marion

September: Begin by visualizing what an observer might sense as they shadow you as you go about your work: the physical environment (sights, sounds, smells, arrangement of furniture, what hangs on the walls, from the ceilings); the interactions among individuals in the setting (students, teachers, administrators, support staff, and parents); and the activities (what are people doing.) Write about this now, and then revisit the vision of your work environment later in the year.

October: Write a story about an event or circumstance that illustrates the issue(s) you are interested in studying.

November: What question(s) would you have to answer to understand your issue better?

December: How do you get at the "real" issue that interests you, how do you peel back the layers to reveal the root causes of the condition/circumstance/situation you would like to change or understand better?

January: Think about the kinds of "evidence" that convince you that something is working...then answer: What data do I currently have about my students? What feedback do I have from parents, administrators, and others which will influence my thinking? Where are the gaps? What do I do with the data?

February: How can I use the data I've collected to better understand my question? My issue? What do I do with the data?

March: What have I learned from the data I collected after reading through it, rereading it, looking for patterns, themes, curiosities?

April: How can I tell my story, what I have learned, to others? What parts do I leave in? What do I leave out? What form should it take? Who are the others who might/should/could see what I have written?

May: Revisiting September's writing...what would an observer sense as they shadow you going about your work...the physical environment, the interactions among individuals and the activities. Compare this with your September entry. How has the vision changed? How is it the same?

Other: What is the action in your action research?

Reflective Journals as a Source of Data

Teachers who have experienced action research often cite their journals as the most valuable sources of insight from the action research experience. Even some of those who struggle to find a time, a place, or a means for recording important information reflect that they wish they'd done more of it, particularly early in the school year. In light of teacher comments about the value of regular journal entries, we offer the following tips for using a journal effectively.

Consider using your journal as:

Field Notes: A place to note details from careful observations of students, interactions, events or dialogue, and the reflections and reactions of the observer to those observations.

A Scrapbook: A place to collect artifacts, photographs, handouts, notes on post-its, copies of grade sheets or attendance records. By placing captions below such items, the researcher can be reminded of the significance of the artifacts.

A Portfolio: A collection of student work showing progress, of student drawings or poetry, of examples of students' "best" work, or of descriptions of projects completed. The researcher can use cover sheets to describe what the work represents and why it was selected to put in the portfolio.

Kathleen Adams, in her book **Journal to the Self**, *suggests using a journal in the following ways (adapted for classroom settings):*

Visual of the Classroom: Describe the physical surroundings as well as the activities taking place, and record the feel of walking into the room or peering through a window. Include any sights, smells, sounds, or the feel of being there. Note what people are wearing, the arrangement of the furniture, what hangs on the walls, etc. Do this over the course of the school year, at least quarterly, or more often if you'd like. Compare the visual reports as part of your data analysis.

100 Issues: Number a page in your journal from 1 to 100 and list quickly issues, events, or ideas that provoke sensation, whether pride, frustration, tenderness, anger, joy, or sadness. Write as quickly as you can; it is okay to repeat entries. Afterwards, identify categories, patterns, problems, or themes that emerge. This helps get below the surface, past the obvious, and helps focus on the underlying issues that are creating the sensations.

Stepping Stones: These are significant points of movement along the road of your teaching life—markers or places where you pause. They may be your response to the statement, "My teaching will never be the same since_____." First list 10 or 15 events and then choose one to expand upon. Recapture the events and moments that shaped the experience. You may want to contemplate a metaphor for the experience or an emotion that rises out of it and develop it into a story or a drawing and title it.

Time Capsule: These are periodic logs written daily, weekly, monthly, quarterly, or annually. They are valuable for pinpointing cycles, patterns, and rhythms. The journal entries will tell a story over time. The series of entries intertwine into an intricate tapestry. Approach this by revisiting the same subject or asking the same question at regular intervals. For example, each month you might address where you are in relation to an issue that you identified early in the school year.

Topic du Jour: Related to the time capsule, this strategy revisits a number of topics regularly. First, choose a list of daily or weekly topics and assign them to days of the week or weeks of the month. Each of the topics will be revisited at the assigned interval, allowing you to track multiple issues simultaneously. By reading across the entries over time, you begin to see patterns emerge that help you understand more clearly what is happening.

However you choose to use or organize your journal, try to write in it regularly because it may become an important source of data for your final report.

Robin Marion is a professor at National Louis University. Used with permission.

WRITING YOUR PAPER

Before individuals pull together all of their data, journal entries, and meeting notes, have the group talk about the final report. Ask the group to generate a list of possible areas to address in the paper. Some teachers prefer to use this list as a framework to organize their work.

While some facilitators are comfortable with the group constructing this list, others prefer to present a framework for participants to use. Examples of both are included.

Try to encourage creativity and originality so that the papers do not all look alike.

What's So Important About Writing Up Our Research?

(7 compelling reasons to pull it all together)

1. **Synthesis**
   Writing up our findings allows us to pull it all together: to clarify our thinking, to decide what it really is that we want to communicate about our research and how we want to say it, and to make it tangible by getting it down on paper.
2. **Reflection and action**
   Writing can lead us toward new discoveries about what we know and what we believe. In this sense, writing about our work is intellectually stimulating and professionally rejuvenating. Articulating our theories and insights helps us forge new connections, rethink our assumptions, and refine our work as educators.
3. **Building community through communication**
   How often do we get the chance to talk seriously with other educators about the work we do in our classrooms? Teachers pay attention when other teachers talk. When we share our classroom action research with colleagues, our voices resonate for each other in powerful ways.
4. **Empowerment and visibility**
   When teachers study and write about their work, their knowledge becomes more visible to themselves and others. Here is a chance to contribute what we understand about education and to help bridge theory with practice. Here is a chance for teachers to speak and to be heard in ways that uniquely impact what is known about teaching and learning.
5. **Perspective**
   We often hear from the "experts" about what's right and what's wrong with education, but rarely do those voices speak from inside the classroom experience. We, on the other hand, have a distinctive "insider" perspective to share regarding what's really going on in schools today.
6. **Making a difference**
   Not everyone has the opportunity to systematically conduct meaningful research in their classrooms in ways that directly impact teaching. Our work makes a difference not only for us and for our students, but for parents, colleagues, administrators, and policy makers in our own schools and beyond.
7. **Regeneration**
   While writing up findings may bring a logical conclusion to a specific research project, more often than not it will also open up new questions, new concerns, and new areas for inquiry and research. New life is breathed into our teaching.

Comments from Facilitators

Writing the final paper is scary for some teachers. As they get closer to the end of the year, their frustration level rises. Some teachers don't see a strong purpose for doing it. They will tell you that they discovered what they needed to know and don't feel the need to do the writing. Give them strategies to keep them moving along while supporting and encouraging them. Teachers say that writing about their work forced them to analyze and think more deeply. They say that it required a different kind of thinking and enriched the experience. In the end, after all the blood, sweat, and tears, they see the rewards.

Writing about My Action Research

Getting ready to write...Before participants pull together their final paper, we ask them to reflect on their thoughts and feelings. This is very helpful feedback for facililtators.

When I think of writing up what I have learned in my action research project, I...

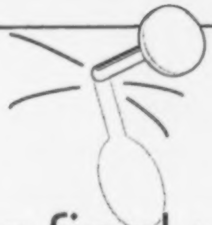
As a writer, I think I am...

One thing I am hoping will come out of doing my write-up is...

One thing that would help me with writing is...

One thing I am hoping will come out of my action research project is...

NAME (optional)



Ideas for your final write-up

_____ Your name/what you do (district position)

_____ Background information (setting, population, school, class)

_____ Question (expectations, assumptions, evolution, if applicable)

_____ Why chose the question; (rationale). What drew you to the question?

_____ Why important to you. Educational philosophy, if applicable to question

_____ Instruments used to collect data (surveys, questionnaires, etc.)

_____ Actual data (students' samples, quotes, voices; adult quotes; observations)

_____ Literature review/references (if used)

_____ Organization of data/analyzing data by themes, chronologically, by questions, by source

_____ Struggles (to arrive at question, to collect data, findings, etc.)

_____ Reflections on action research process, separate from the topic

_____ Changes you've gone through in the process; insights; inconsistencies

_____ Conclusions/findings; what I learned; interpretation

_____ Feelings, intuitions not encountered in the study

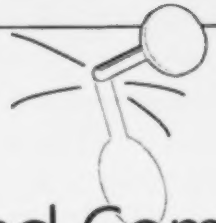
_____ Future directions; Where do I go from here?; impact; new questions; ideas for implementation changes in practice/perspective; recommendations

_____ Pictures

Other thoughts:

- All write-ups should not/will not look alike. They will reflect not only the teacher and his/her particular style, but also the nature and context of the question.
- Remember you are telling your story. You can organize this chronologically, by themes, by data source (i.e. students, parents, staff), or some other way. It's up to you!

Generated by a Madison Metropolitan School District Action Research Group.



Suggested Components of the Action Research Report

The following components should be included somewhere in the report, but not necessarily in this or any other prescribed order.

- Abstract of the study
- Statement of the question (focus, problem, issue) and rationale for addressing it
- Summary of actions that the researcher took to address the question
- Description of the context, setting, or background of the study
- Explanation of the research methods and types of data collection
- Descriptive account or narrative of what happened in the study
- Interpretation or analysis of the data collected (the findings)
- Conclusions, recommendations or suggestions for future actions for self and others
- Connections to the educational research literature (optional)

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Confidentiality

Suggestions for dealing with issues of confidentiality in action research work and writing are listed below.

1. ALWAYS change the names of the students who were part of your study in your written report. If you want to use the name of a teacher or the principal, check with them before you include their names.

2. Make sure you honor any requests from parents which were included in the Informed Consent process. (See pages 241-243.)

3. Write a vignette so that it describes several experiences which happened to more than one person. The reality is that you are disguising how all of these incidents happened to one person. Describe the behaviors accurately, but attribute them to different people.

4. Keep the focus on yourself as much as possible.

5. Create a character at the beginning of your study.

6. Don't put anything in print which you don't want printed.

7. Take care with *what* you say and *how* you say it.

Crafting and Assessing Your Writing

according to the 6-TRAIT ANALYTIC MODEL FOR WRITING ASSESSMENT

1. IDEAS and CONTENT

The ideas are the main theme together with details that enrich and develop the theme.

- Paper has clear sense of purpose and a focused theme.
- Topic is narrow enough to be manageable.
- Reader's attention is held.
- Anecdotes and details are relevant and enrich central themes.

?Can you sum up the main ideas in a few clear sentences?

?Does it have those "you had to be there" kind of details that make it unique?

2. ORGANIZATION

Organization is the internal structure of a piece of writing, the logical pattern of the ideas.

- Introduction is inviting, sets the stage, and pulls the reader into the topic.
- Sequence is logical and effective.
- Transitions are strong and link ideas.
- Conclusion brings a sense of resolution.
- Overall effect is smooth and balanced

?Do the beginning and ending work harmoniously—like bookends?

?Does the internal structure enhance the main idea?

3. VOICE

Voice is the heart, the wit, along with the feeling and conviction of the individual writer.

- Writing is individual, expressive, and engaging.
- Writer seems to speak to audience. Reader feels a connection with writer.
- Narrative is honest, appealing, and conversational.
- Expository is engaging, shows strong commitment, and anticipates questions.

?Would you take this home and read it aloud to someone?

?Would you keep reading if it were longer? Much longer?

4. WORD CHOICE

Word choice is the use of rich, colorful, precise language that moves and enlightens readers.

- Words are precise and accurate.
- Lively verbs give writing energy.
- Word choice is well-suited to audience and topic.
- Redundancy is avoided.
- Jargon, cliches and slang, except for effect, are not used.

?Are there words or phrases that linger in your mind after you read them?

5. SENTENCE FLUENCY

Sentence fluency is the cadence of the language, the way in which the writing plays to the ear.

- Sentences move with easy rhythm and flow.
- Sentences are well-built and vary in length as well as structure.
- Fragments, if used, add style; dialogue, if used, sounds natural.
- It is easy to read aloud.

?Does this piece invite expressive oral reading?

6. CONVENTIONS

Conventions are the mechanical correctness of the piece—spelling, grammar and usage, paragraphing, use of capitals, and punctuation.

- Spelling and punctuation are accurate.
- Skillful use of grammar/usage adds to clarity and style.
- Paragraphing reinforces the organization.

?How much editing will you have to do to get this piece ready to publish?

Excerpted and modified with permission from:
Northwest Regional Lab, Culham, R.B. & Spandel, V. 1994, 1996.

EDITING WITH YOUR PEERS

Once group members begin to pull together their written work, provide opportunities for them to share this work with their peers.

Ask individuals to find a partner and read a section of their paper. Provide time for partners to offer helpful feedback.

At a later meeting, ask each participant to read aloud a portion of the paper to the whole group. Have group members offer feedback.

Give group members the opportunity to edit each other's papers. In small action research groups, all members read everyone's paper. In larger groups, participants read 2-3 papers and provide feedback to their colleagues.

Questions to Ask when Editing a Colleague's Paper

CONTENT

1. What question was explored?
2. What data were collected to answer the question?
3. Were the data appropriate for answering the question? Why or why not?
4. What were the author's findings?
5. What action does the author plan to take based on the findings?

MECHANICS

1. Is the writing grammatically correct?
2. Are there spelling errors?
3. Are there typographical errors?
4. Is the paper clearly organized?
5. Does the author use organizational devices to lead you through the paper? (headings, sub-headings, spacing, underlines, etc.)

STYLE

1. Is the paper easy to read?
2. Does the author take too long to get to the thesis or question posed in the paper?
3. Is the text engaging? Why or why not?

Working Draft of "Qualities of an Effective Action Research Report"

> ***The research question is significant, manageable, and clearly stated.***

A **significant** question is one that focuses on teaching and learning practices that could have an impact on students' behavior or achievement.

A **manageable** question is one that is do-able within the time constraints of the researcher. It is neither so broad as to be impossible to answer nor so narrow that it cannot offer much insight.

A **clearly stated** question is one that accurately conveys the focus and scope of the research.

> ***The research methods are sufficient, appropriate, and exhibit triangulation.***

Research methods are **sufficient** when they generate enough data to provide some answers or insights.

Research methods are **appropriate** when they generate the type of data that could address or answer the question.

Research methods that collect data from three different sources **exhibit triangulation**. (e.g. teacher observations, student interviews, videotapes)

> ***The descriptive account or narrative (story) of the study is sufficient, appropriate, and vividly expressed through specific examples and detailed vignettes.***

The descriptive account is **sufficient** if it gives the reader a clear picture of what actions the researcher used and of how the subjects of the study responded to these actions.

The descriptive account is **appropriate** if it provides the necessary information to understand the basis for the researcher's insights or conclusions.

The descriptive account is **vivid** if the reader can picture what occurred as a result of numerous details, quotes, samples of student work, or episodes.

> ***The interpretation or analysis is reflective, insightful, and clearly supported by the data.***

The interpretation is **reflective** if it shows evidence that the researcher has given considerable thought to the actions of oneself and the other subjects of the study.

The interpretation is **insightful** if it leads the researcher to some new ways of looking at or understanding the activities under study.

The interpretation is **clearly supported by the data** when the researcher can reveal in a convincing way how the data leads to and justifies the interpretation.

> ***Conclusions contain a logical plan for follow-up action steps.***

The conclusions **contain a logical plan for follow-up** when the researcher specifies what actions he/she will take next as a result of what was learned and what he/she might recommend for others interested in the same question.

> ***Identities have been protected.***

The people in the study have been **protected** when they cannot be identified or, when necessary, have given written permission to be part of the study.

> ***The tone of the report is professionally respectful to colleagues in the program or school.***

The tone is **professionally respectful** to colleagues if it does not make its point by criticizing or negatively presenting one's colleagues. The focus of the report is a study of the actions of the researcher, not the actions of one's colleagues.

> ***The report reflects genuine interest on the part of the researcher and addresses issues that would be of genuine interest to others.***

A report that **reflects genuine interest on the part of the researcher** is one that appears to have meaning and importance to the researcher. It is not merely a response to an assignment from an administrator or a professor.

A report that **focuses on issues that would be of genuine interest to others** is one that is broad enough to be applicable, generalizable, or useful to others.

> ***The report is well-written.***

A **well-written** report is one characterized by a logical flow of ideas, proper grammatical usage, correct spelling, and clear and effective sentence structure.

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Example of an Action Research Paper

THE INTERACTIVE READING GUIDE: AN INVESTIGATION OF A STRATEGY TO SUPPORT STRUGGLING READERS IN LEARNING HISTORY

Doug Buehl
Madison East High School

"How can we teach history to students who cannot read the textbook?"

The bell rings, the classroom door opens, and twenty-five ninth-graders file in to another day of studying history. Prominently positioned on most desks is a thick, glossy paged textbook, and as the class unfolds, students flip open their texts, to refer back to sections read the previous evening, or to launch into the next assignment, perhaps on the American West, the Industrial Period, the Progressive Era, or the Great Depression. Textbooks, and reading, are a daily fact of life in learning history.

Indeed, the ability to read is essential for success in all academic subjects at the high school level. For many of our students, however, reading is a roadblock to rather than a vehicle for learning. In particular, struggling readers are continuously frustrated by the reading demands placed upon them in content classrooms. As the introductory quote denotes, teachers are frequently at a loss when trying to work with students who cannot independently read the required course materials.

Beginning with the graduating class of 2003, effective reading skills will take on an even greater significance, due to the upcoming Wisconsin state high school graduation test. The graduation test will assess literacy in the areas of science, social studies, language arts, and mathematics. All students will be asked to demonstrate their learning through both reading and writing. Struggling readers will be especially at risk for not receiving a diploma due to their performance on the state test.

In addition, today's students are facing lifestyles and workplaces that will mandate a much more sophisticated level of literacy than our previous students. As the International Reading Association Statement on Adolescent Literacy (1999) asserts:

> Adolescents entering the adult world will do more reading and writing tasks than at any other time in human history. They will

> need reading and writing to cope with the flood of information they will find about the world as it exists. They will also need to use literacy to feed their imaginations so that they can create the world of the future. In a complex, diverse, and sometimes even dangerous world, their ability to read is crucial, and therefore it is essential not only to help them survive, but also to help them thrive.

Background of Study: The Struggling Reader in the High School

As a high school reading specialist, I am involved for much of my school day in exploring strategies that can help students become more effective and efficient learners in their content subjects. My work may be with individual students, with students who are receiving tutoring assistance, with students who elect a reading class, or in collaboration with teachers who are seeking ways to help these students be more successful with reading tasks in their courses. Although identifying effective practices for serving struggling readers has been an ongoing part of my job at East High School, the impending high-stakes graduation test creates an atmosphere of immediacy for designing programs and investigating strategies that can succeed for these students.

During the 1998-1999 school year I have participated in devising a pilot project at East High School in ninth grade U.S. History. This project targets improving the academic and reading abilities of struggling readers within the context of a social studies classroom. My involvement with the development of this project has been in conjunction with a social studies teacher and a reading teacher. The social studies teacher, who is also certified to teach reading, formerly worked with at-risk students at East. This was her first year teaching history at the school. The reading teacher works extensively with struggling readers in the Learning Shop, our school tutoring program. Many of the students who would be impacted by the pilot project would also receive tutorial support under her guidance. Both are veteran teachers with years of experience teaching struggling readers.

Reading test data culled from Wisconsin Student Assessment System (WSAS) underscores the extent of reading underachievement at East High School. Struggling readers perform at the minimal and basic levels on the WSAS tests, and are typically at risk for failing their academic subjects. The results of the 1997-98 WSAS tests for Madison tenth graders indicate that 7% performed at minimal range, 14% at the basic range, and 16% were not tested. WSAS scores for 1997-98 East High tenth graders, however, reveal a larger contingent of struggling readers who may fare poorly on the state graduation test; 12% of East tenth graders scored at the minimal range, 20% at the basic range, and 17% were not tested. Students who did not take the WSAS—special education students, limited English proficiency learners, and truants—are students whose low skills exempted them from the test or who as a group traditionally perform poorly on reading achievement measures. These WSAS results indicate that, as students move through high school, many low achieving students may either drop out, or are not tested.

East High WSAS results by ethnic background are even more sobering. For example, 26% of African-American tenth graders scored at the minimal level, 20% at the basic, and 26% were not tested. Likewise, Hispanic students had a difficult time with the WSAS reading test: 9% performed at the minimal level, 45% at the basic, and 27% were not tested.

The profile of a struggling high school reader reveals characteristics that go far beyond a simplistic statement that "they can't read." Although a few high school struggling readers do founder with the rudiments of reading, most can read to some extent, and some can read certain materials fairly effectively. What this group of students cannot do, however, is handle the reading demands of high school academic classes independently and successfully.

A common misconception about struggling high school readers is that their sole, or perhaps primary, need is further instruction in phonics. Teachers tend to notice these students' lack of fluency when they read out loud and when they labor to figure out unfamiliar words. As a result, many teachers feel helpless in assisting the learning of these students. Yet a more comprehensive profile of a struggling high school reader suggests a number of possible interventions by teachers that can help these students become more successful learners and readers in their content classrooms (Wisconsin Department of Public Instruction Curriculum Guides in Reading, 1986, and Strategic Learning in the Content Areas, 1989).

For example, struggling readers often possess limited background knowledge related to what will be learned in class. In addition, they may need help accessing what they do know and deciding how to use this knowledge when they read. These students tend to approach reading tasks reluctantly, they read with no clear purpose or goal, and they read with little consideration of possible strategies they could use to insure that a passage makes sense. In essence, they jump in without looking, against their will, with no plan for how to proceed, and with little expectation that they will gain much from their efforts.

During reading these students display a limited attention span, often finding it hard to focus on their reading for a concerted period of time. They tend to skim over hard words rather than apply word identification strategies that they may know but have never become practiced enough to use automatically. They may have a limited vocabulary in the topic area they are studying, and they may have an insufficient general vocabulary as well. Most importantly, they tend not to monitor their comprehension as they go along, preferring instead to read merely to "get done." They may glean only isolated pieces of information, but miss the point of a passage. They may read passively and not ask themselves questions about the material or conduct an internal monologue on what they are encountering. And they tend to give up easily, especially when the material is challenging or uninteresting.

Finally, after reading, these students are able to offer only a few facts, perhaps disconnected, about the passage. They may misinterpret information, and prefer to "look for the answer" and write down verbatim responses. They are heavily reliant on the teacher for constructing meaning, and they tend to avoid reading whenever possible. Their lack of reading practice, both in and out of school, impacts their reading fluency, and some students find themselves mired in laborious word-by-word efforts whenever they must confront a reading task. Many of these students consciously choose not to complete reading assignments outside of class and independent of the teacher's guidance.

Content teachers cannot be expected to teach rudimentary reading skills within the context of their curriculum, but they can integrate strategies into the classroom routine that address many of the characteristics detailed in the above profile. For example, strategies that both elicit and build relevant background knowledge will give struggling readers a more enhanced knowledge base as they begin reading. Strategies that help readers sort through information and establish major ideas are especially beneficial to struggling readers, who tend to see all information as of equal value and, as a result, too overwhelming to attempt to learn. In addition, strategies that involve peers working together during reading provides a network of learning that can assist struggling readers who do not fare well with independent reading expectations.

Therefore, the goal of our pilot project was to investigate classroom strategies with a group of ninth grade history students who fit this profile of the struggling reader. Our pilot proposal is explained below:

Rationale: Historically there has been a population of ninth grade students who have not attained academic success in history. This lack of success can generally be ascribed to inadequate reading skills, disinterest in the content, and insufficient background knowledge in the topics being studied. These students attend school regularly and do not have overt behavioral problems that interfere with learning. Teachers might observe behaviors such as daydreaming, withdrawal, lethargy, and task avoidance, and these students may expend great effort to hide their academic deficiencies. As a result, they fail to meet classroom learning and performance expectations.

Objectives: This pilot proposal endeavors to address the needs of these struggling learners by meeting the following objectives:

1. accelerate learning of students who are struggling readers through teacher-led instructional activities, including use of technology and self-paced educational software;
2. assure students will successfully complete one year of the required social studies credit for graduation;
3. provide students with integrated reading/writing/social studies skill development;
4. provide alternative learning strategies, materials, and skill development for content area material;
5. explore strategies that will help students meet state standards, benchmarks, and assessment criteria as delineated in the upcoming state graduation exam;
6. continue to meet the school's overall student achievement goals with specific attention to minority student goals.

Description of Pilot Program: This program will be instituted in October, 1998. Two special sections of ninth grade U.S. History will be created, periods 1 and 7. Each class would have a limit of 15 students. Students struggling in history will be referred to this pilot program by their ninth grade U.S. History teacher, principals, counselors and the East reading consultant. Students and their parents may be interviewed by the history teacher, reading consultant, principal and/or counselor to insure students meet program criteria. Those individuals who wish to participate in this option will be rescheduled from their current history class into the pilot program.

This pilot history class will differ from current social studies classes in the following ways: (1) smaller class sizes can more directly address individual needs of the students; (2) emphasis will be on reading and writing in a content area; (3) use of a broader range of materials will help stimulate interest in the content; (4) organization around themes rather than chronological study can help students see connections between the past and their lives; and (5) skills emphasized in this program will be transferable to other content reading and study situations.

The pilot history classes were approved by the East Principal, and we selected students according to the program guidelines described above. The classes began to meet in October during the first quarter of instruction.

The Study: Investigating Strategies Effective with Struggling Readers

How can teachers of social studies, science, math, or other academic courses support the learning of struggling readers in their classrooms? My role in the pilot project was to identify classroom strategies that could help these students more effectively learn in their academic classes as well as provide them with sufficient scaffolding for handling challenging reading assignments. Successful strategies could then be shared with other teachers who teach similar students at East.

My action research question, then, evolved into: **What strategies are effective in supporting the learning and reading development of struggling ninth grade readers in a U.S. History course?** The strategies we decided to investigate were predicated on a number of assumptions. We assumed that our students would either not do the required reading out of class, or would have difficulty completing it successfully. We assumed that students would need structure integrated into a reading assignment that guided them toward successful reading and completion of the task. We assumed that students would need assistance, either from their peers or from the teacher, while reading the class materials. We assumed that students would need ongoing practice in engaged reading, and that they needed this practice to develop fluency and become more automatic in their basic reading skills. We assumed that the students would find much of the class materials frustrating to read, and that they might be reluctant to read some materials.

We decided to experiment with a number of classroom strategies during the pilot project, including graphic organizers, jigsawing of materials, reading from different perspectives, and others. For the purposes of this action research study, I specifically investigated employing Interactive Reading Guides (Wood, 1988) with these history students.

The Interactive Reading Guide is a variation of the study guide and involves students working with partners or in small groups to figure out the essential ideas in their reading. In some respects, Interactive Reading Guides are analogous to those treasure hunts we participated in as children. You were given a series of instructions that led you to several locations. At times you had to pause and think about the clue you had received, and it helped to collaborate with others. If you followed all the directions carefully, you discovered the spot that contained the "treasure"—the whole point of the exercise.

Getting the point of a reading assignment, however, is an especially difficult undertaking for struggling readers. They are confounded by the amount of information they encounter in a textbook, and they are unable to differentiate key ideas from supporting detail. As a result, they could benefit from a few clues that direct their excursion through the text.

Teachers implement the Interactive Reading Guide strategy in the following manner. First, they carefully preview a reading assignment to determine the major information to be learned and to locate possible pitfalls for understanding. This initial "scouting" excursion should pay special attention to any difficulties struggling students might have with the material. Is there an occasional "mismatch" between students and the text. Does the author assume knowledge that some students might lack? Does the author introduce ideas and vocabulary without providing sufficient explanation or examples? Does the author use language or a sentence style that will be tough reading for some students? As part of this preview, the teacher identifies salient features of the text that students might overlook, like pictures or charts and graphs.

Next, the teacher constructs an interactive reading guide which is designed to be completed with partners or in cooperative groups. Items on the guide should help students decide where to focus their attention during reading and support their learning when the material might prove challenging. The teacher segments the passage to be read so that portions are orally read by individuals to their group, portions are read silently by each student, and portions that are less important are skimmed. In some circumstances the guide can also be used to provide additional background information, or to encourage students to brainstorm what they already know about the topic.

The completed interactive reading guides then serve as organized notes on the material for classroom discussions and follow-up activities. They also make excellent study guides for examinations. A main advantage of the interactive reading guide is that it makes it possible for students to learn from text materials that may be too difficult for independent reading. In addition, students are conditioned to read materials at differential rates, for varying purposes, as they are directed to read some sections carefully and to skim others. Students are also able to draw upon each other as resources when they tackle a challenging reading assignment, and they discuss the material as they read rather than afterwards (Buehl, 1998).

Research Methods and Data Collection

We experimented with the Interactive Reading Guide strategy two times during our pilot project. The first guide was created for a lengthy and challenging article on immigration and the second guide for an extended article on Great Plains farmers in the late nineteenth century. I created the first guide, in consultation with the history teacher, and she created the second one, using my example as a model.

We presented the first Interactive Reading Guide in November, about six weeks after the pilot classes were created. Therefore, the history teacher had an opportunity to observe the students for a few weeks before we implemented this strategy. Both groups of students were small—the first hour class consisted of ten students, the seventh hour class of twelve students. Because the students were recommended for the class by their previous ninth grade history teachers, and they had to assent to participate, we were working with students who at least had expressed an interest in improving their skills.

The students represented a diverse cross section of the student body, and included individuals of white, African-American, and Hispanic ethnic backgrounds. Two of the students were in the learning disabilities program. All students fit the profile of the struggling reader described above—they were resistant readers who were having difficulty achieving success in their previous history class. However, they were also wary about the pilot program, some worrying that the class would have the stigma of being "dummied down," which these students did not desire nor felt they needed. The history teacher found it necessary to assure them that this class was indeed a "regular" history course that used the same textbook as their previous class and followed the same content expectations. In addition, we told them, they would receive extensive reading attention and skill development. It soon became evident that these students did need a great deal of support during reading, and that they needed to develop overall academic and learning behaviors as well as upgrade their reading abilities.

The passage on immigration during the nineteenth century was selected by the history teacher to provide additional background to the textbook material. This reading was quite sophisticated and presumed a fair degree of background knowledge, but it was also a lively passage with vivid descriptions of what life was like for immigrants traveling to America. I segmented the article into three sections (A, B, and C) and created an Interactive Reading Guide for each section (copies of the Interactive Guides are included in the Appendix). To condition the students for their role as listeners and to set the context for the reading, the history teacher read Section A of the article aloud to the students, and they were encouraged to refer back to the article after the read-aloud to complete Section A of the guide. Then students worked in pairs to complete Section B, and finally Section C of the guide. Students were allowed to select their own partner for Sections B and C of the phase.

Although the reading was only five pages long, it was dense and formatted in three column magazine style, with a small font size. It took most students four to five days to complete all three sections of the activity.

Data Collection assumed the following forms. First, observation data was collected by the history teacher, who had experiences with the students before using the Interactive Reading Guides, and was able to contrast their behaviors on this strategy compared with other reading activities. Secondly, I also observed the classrooms and collected observational data. I interviewed the history teacher, keeping her comments in a journal, and I also recorded my own observations in the journal. Next, we had performance data from the students, who completed the reading guides. We were able to judge the effectiveness of the strategy based on their abilities to demonstrate their understandings of difficult text on their guides, which were handed in and counted as a class assignment. In addition, student comments were tracked as they worked on the activity, which I also recorded in the journal.

The second Interactive Reading Guide was administered in February, and again focused on a challenging selection, an article with the same visual format as the immigration passage described above. This second article centered on the tough lifestyles and harsh adjustments Great Plains farmers had to make in the late nineteenth century. This Interactive Reading Guide took students nearly a week to complete, with all students doing the first part, and then the class jigsawing the rest of the packet. The jigsaw strategy involves dividing a reading into parts and assigning responsibility for each part to a different group of students. The students who read a particular part then take turns "teaching" the pertinent information to their classmates who had not been assigned that segment (Aronson, et. al., 1978).

In the spring, after both Interactive Reading Guides, as well as other strategies, had been explored with the students, they were given a short survey which asked them to reflect on the effectiveness of our pilot program. The data from that survey is also included in this discussion.

Discussion of Findings

The Interactive Reading Guide strategy was fairly effective in supporting the students in the pilot program in a number of respects. First, they were quite engaged in reading the material. Typically, the history teacher found these students to be capable of sustaining silent reading in class only a short period of time, perhaps ten to fifteen minutes, before losing concentration and perhaps feeling over-exertion from the efforts they needed to expend. However, these students were able to work the entire period on the Interactive Reading Guide activity, and were willing to continue on the task for several days. This is especially significant because the material was clearly at a higher difficulty level than their textbook and they had to work hard to complete the guide. They could not get by with superficial skimming for answers, because questions on the guide often asked for more thoughtful responses that required integrating material and making connections rather than just listing of factual information.

Second, student work on the guides demonstrated that they were gaining a fair degree of accurate information from the material. We were concerned that they might just fill in answers to get the assignment done, rather than truly attempt to do a conscientious job. At times the history teacher had to battle with their disposition to do work just to hand it in, but with this particular activity there seemed to be more effort on their part to satisfy the intent of the assignment.

A large part of this result can probably be credited to the cues that the guide provided for reading and prioritizing the information. But the interactive elements also seemed quite significant. Students were allowed to complete a reading assignment with a partner rather than alone, and this social element may have lowered the frustration index because they were allowed to collaborate with a fellow problem-solver when things were not immediately evident from the text. The history teacher also commented that her classes were generally better behaved during the activity than was sometimes true in the class. This effect may be due to some extent to the presence of a second and sometimes third adult (the reading teacher and myself) in the room during the activity. Yet it also appeared significant that students had a partner to assist their learning during the days of the activity.

Third, working with a partner was generally appreciated by most students, but not all. The first time we used the guides, a couple of students resisted working with others and wanted to work alone. To some extent this was a personal work preference, and to some extent it reflected a class dynamic where some students wished to operate in isolation from the other students. Obviously, some elements of the guide would not be effective with a student working alone because we intended that discussion during reading be a key ingredient of the process. The history teacher allowed students to choose their own partners as long as they could be productive, and she matched up students who were reluctant to locate someone with which to work.

Not surprisingly, we noticed during the first time we explored the Interactive Reading Guide strategy that interpersonal and general academic behaviors were just as significant factors as reading ability in this learning activity, as well as others we tried. To help us analyze these behaviors and to provide a more defined work environment for the second time we used an Interactive Reading Guide, I constructed a series of three rubrics to be used with the students (see Appendix). One rubric outlined worker traits, a second learner traits, and the third cooperative traits. Each rubric listed characteristics on a five point scale, from A to F, in an attempt to help students recognize traits that could facilitate their learning as well as impact their reading development. Worker traits included such items as giving top effort, persevering when the work is challenging, and an inclination to try to do the job right. Learner traits included an open-mindedness and willingness to try new things, as well as handling feedback, taking risks, and keeping focus. Cooperative traits included how one contributes to the overall classroom environment, how one supports the learning of others, and how one interacts with classmates during learning.

I used this rubric to guide my observations during the second time we explored the Interactive Reading Guide strategy, with the passage on farmers in the Great Plains. I observed that students were perhaps somewhat more willing this time to engage in the activity, and that students showed again a fair degree of perseverance in engaging with difficult text. We were more aggressive in arranging partners this time, and all students knew from the start that we expected them to work with a classmate. We also emphasized several of the cooperative traits as we got them started on the activity. I observed again that most students seemed genuinely interested in coming up with reasonable answers for the guide, and that they were willing to problem-solve with each other before calling for help from a teacher. As teachers, we would direct their attention to a part of the text that could help them, or suggest ways to problem-solve where they were stuck, and most students appeared comfortable with that assistance, rather than expecting us to supply them the answer.

In both trials with this strategy, I have to admit that I found myself amazed that the students were willing to work as hard as they did on uncovering meaning in their reading. In my judgment, both texts—immigration and prairie farmers—which were written for adult audiences, represented a upward adjustment from the textbook, which the students did not find easy. I was not at all sure that either selection would be really accessible to the students. Yet the Interactive Reading Guides seemed to provide enough structure, and with the added element of peer support, the students were able to learn from them.

Indeed, the rigorous nature of these two selections provided other unintended benefits. Both passages reinforced to students that the curriculum of the pilot program was intended to enhance their skills with legitimate material, and the students seemed to appreciate that we regarded them as capable of handling difficult, adult-style text. As mentioned earlier, several individuals were very sensitive to being singled out as needing easier expectations. Therefore the unmistakable rigor of the tasks may have been seen as an endorsement of their abilities and potential. In a sense they "rose to the occasion" and worked to prove that they could read this material.

Observations and Conclusions

Classroom strategies such as the Interactive Reading Guide do seem to hold promise for boosting the achievement of struggling readers as they learn in their content classes. However, an overriding concern continues to be with the three traits represented in my rubric—that of workers, learners, and cooperators. Interactive strategies which are less teacher-directed and allow students the freedom to work with each other also run the risk of time off task and other behaviors that may interfere with learning. Often teachers conclude that struggling readers are too immature to handle the responsibility inherent in these strategies, and choose instead strategies which keep students quiet and task oriented. The reverse option, I feel, is to continue to explore interactive strategies, but to use tools such as the rubric to teach these responsibilities and expectations as an integral part of a lesson.

Students generally responded favorably to our strategy experimentations on a short survey administered in May, 1999 (see Appendix). Not unexpectedly, all but one student either agreed or strongly agreed with the first statement: "It is more helpful to do the reading required for history during class than at home on my own." The second statement, "The activities we do during reading in this history class help me better learn to read," received a somewhat more mixed response. While most agreed or strongly agreed, three students were not sure, one disagreed, and one strongly disagreed. These results may be understandable because all of our strategies were imbedded in the learning of the course content and were not necessarily transparent as initiatives to improve reading skills.

The third statement, "It helps to have classmates or the teacher available to help me while doing reading assignments in class" received a similarly favorable response. Two students were not sure and two disagreed or strongly disagreed. This is not surprising, as a couple of students preferred working alone in class, and some students were willing to work with partners as long as these partners were not certain other individuals in the class. The students admitted in their responses to the fourth item that they were "more likely to do the reading in this class" than in their previous history class, and the results were a bit more scattered for the fifth statement, "I am more likely to do the reading in this class than in other classes when the reading is assigned as homework." Apparently they were doing some independent reading for their other classes, or at least they claimed they were.

The final statement, "The reading I have to do in this history class is too difficult," received a decided negative response. Only two students agreed or strongly agreed, and two were not sure. The rest concluded that they could indeed handle the materials we asked them to read. This seems to be a significant response, because struggling readers often complain about the difficulty level of what they are asked to read in class, arguing that they did not complete work because it was too hard for them.

The results of our pilot project this year confirmed our intention to offer a history class with a reading emphasis as a regular course option for the 1999-2000 school year. A major addition to the program will be a block structure; students will be scheduled into the program for two consecutive 50 minute class periods. Students will be enrolled in the two classes for the entire 9th grade year and will receive one required social studies credit for History and one elective credit for reading. The class blocks will be scheduled for Periods 1-2 and 3-4, with each class having a limit of 22 students. Students would be referred to this program by their middle school counselors and teachers, based on the criteria listed below. US History teachers, principals, and counselors and the reading consultant may also refer students for possible inclusion.

Students who fit the following profile will be recommended for the History/Reading block:

- Students at risk of not succeeding on the State Graduation test.
- Students in the regular curriculum who struggle with independent reading.
- Students who may be extremely slow readers or who lack reading fluency.
- Students who need to develop academic learning and study skills.
- Students who need support in their learning within the regular curriculum.

Students who are truant or who exhibit other behaviors not necessarily related to reading difficulties will not be accepted into the History/Reading block for next year.

In conclusion, we will continue next year to experiment in the History/Reading block with interactive strategies that will help struggling readers build reading fluency and general reading ability, make connections to learning in social studies, and use reading to enhance their background knowledge in the subject. As the history teacher recently commented: "I got them to read for 45 minutes today! It took a little coaching, but they read for 45 minutes!" This may seem like a modest achievement, but compared with October, 45 minutes of engaged reading is a real milestone.

References

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Reading Guide—"Hope, Tears, and Remembrance"

Section A: Introduction to Ellis Island pages 1-2

1. Entire Class: Listen and follow along in the article as I read this passage to you. Then based on what you remember respond to the questions below. If you need to, you can locate information from the article:

   - Ellis Island is located in what city?

   - What famous national landmark can be seen from Ellis Island?

   - What do they use Ellis Island for now?

   - How many immigrants came to the United States through Ellis Island?

   - List 4 nationalities of immigrants that were mentioned:

     -
     -
     -
     -

   - List 4 reasons why immigrants came to the United States that were mentioned:

     -
     -
     -
     -

Section B: Early Immigration to the United States pages 2-3

1. Both Partners: Read paragraph 1 silently to yourself. Then decide on the answer to this question:

   - Who were the first immigrants to America?

2. Partner X: read paragraph 2 out loud. Partner Y: as you listen, decide how to answer:

   - Were the early immigrants to America regarded as a good thing?

   - Why or why not?

3. Partner Y: read paragraph 3 out loud. Partner X: as you listen, decide how to answer:

   - Did the government keep very close track of immigrants in the early days?

   - What clues in the article helped you figure this out?

4. Both Partners: read paragraphs 4, 5, & 6 silently to yourself. Then list 4 things that attracted people to America:

   -

   -

   -

   -

5. Partner X: read paragraphs 7 & 8 out loud. Partner Y: as you listen, decide how to answer:

   - What are some of the nationalities of the new immigrants?

   - What was the attitude of many Americans to these new immigrants?

6. Partner Y: read paragraph 9 out loud. Partner X: as you listen, list 2 reasons why officials became concerned about immigrants:

-

-

7. Both Partners: silently read paragraphs 10 & 11. Then decide:

- What was happening to some of the immigrants?

- What were 2 things the immigration act of 1890-91 provided?

  -

  -

8. Both Partners: silently skim paragraphs 12, 13, & 14. Look for:

- What do these 3 paragraphs describe?

Both Partners: silently skim paragraph 15 to find out about the first immigrants to come through the new building at Ellis Island.

9. Partner X: read paragraph 16 out loud. Partner Y: as you listen, decide how to answer:

- Locate evidence that shows that most immigrants to the U.S. came through Ellis Island:

Partner Y: read paragraph 17 out loud. Partner X: as you listen, decide how to answer:

- What was the highest number of immigrants coming through Ellis Island in a single year?

10. Both Partners: silently read paragraphs 18 & 19. Then decide:

- If you were an immigrant, what were the chances that you would be allowed to stay in the United States?

Section C: Conditions Coming to America pages 3-5

1. Both Partners: skim paragraph 1 silently to yourself. Locate one name of a famous immigrant that you have heard of before or that you find interesting and write it below:

2. Both Partners: read paragraphs 2 & 3 silently to yourself. Then decide:

   - Why were so many "common people" motivated to come to the United States?

3. Partner X: read paragraph 4 out loud. Partner Y: as you listen, decide how to answer:

   - How did the companies who owned ships try to attrack people to sail to America?

   - If you were a poor person, what could you expect to pay to sail to America?

4. Partner Y: read paragraph 5 out loud. Partner X: as you listen, decide how to answer:

   - List 2 ways poor people found the money for sailing to America?

   -

   -

5. Both Partners: read paragraphs 6 & 7 silently to yourself. Then decide how to answer:

   - List 2 rules that ship companies had to follow for immigrants to America?

   -

   -

   - Several European cities were ports for immigrants. Pick one city mentioned and find it on a map in the classroom. Write the city and its country below:

6. Partner X: read paragraphs 8 & 9 out loud. Partner Y: as you listen, decide which item would be the most difficult to take on a ship:

7. Both Partners: silently skim paragraphs 10 & 11. Look for evidence that these immigrants were very poor:

8. Both Partners: silently read paragraphs 12 & 13. Look for 3 bad conditions for immigrants on the ships:

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9. Partner Y: read paragraph 14 out loud. Partner X: as you listen, look for 2 more bad conditions for immigrants on the ships:

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10. Both Partners: silently read paragraphs 15, 16, & 17. Then decide on 3 more bad conditions for immigrants on the ships:

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11. Both Partners: silently skim paragraphs 18, 19, & 20. Then write one sentence below which summarizes the tough times immigrants had on the ships:

12. Both Partners: silently read paragraph 21. Then decide how to answer:

- If you were an immigrant on a ship to America, what were the chances that you would actually get to the United States?

History Survey

Circle one response for each statement:

1. It is more helpful to do the reading required for history during class than at home on my own.

strongly agree	agree	not sure	disagree	strongly disagree
(10)	(6)			(1)

2. The activities we do during reading in this history class help me better learn to read.

strongly agree	agree	not sure	disagree	strongly disagree
(5)	(7)	(3)	(1)	(1)

3. It helps to have classmates or the teacher available to help me while doing reading assignments in class.

strongly agree	agree	not sure	disagree	strongly disagree
(8)	(4)	(3)	(1)	(1)

4. I am more likely to do the reading in this class than in my old history class.

strongly agree	agree	not sure	disagree	strongly disagree
(7)	(7)	(2)		(1)

5. I am more likely to do the reading in this class than in other classes when the reading is assigned as homework.

strongly agree	agree	not sure	disagree	strongly disagree
(5)	(6)	(3)	(1)	(2)

6. The reading I have to do in this history class is too difficult.

strongly agree	agree	not sure	disagree	strongly disagree
(1)	(1)	(2)	(8)	(5)

Worker Traits

A
____ Attends class every day (no unexcused absences)
____ Arrives to class on time every day
____ Gives top effort the entire class period
____ Settles down quickly & gets into the work
____ Tries hard even when work is challenging
____ Willing to push self even if work's difficult at first
____ Tries to do things right & wants to do things right
____ Is able to work independently
____ Can tell whether has done a good job or not

B
____ Attends class every day (no unexcused absences)
____ Arrives to class on time every day
____ Gives top effort nearly all of the class period
____ Settles down & gets into the work
____ Usually tries hard even when work is challenging
____ Can push self even if it difficult at first
____ Usually tries to do things right
____ Is able to work independently most of the time
____ Can usually tell when has done a good job or not

C
____ Attends class nearly every day; rarely absent
____ Arrives to class on time nearly every day
____ Gives top effort most of the class period
____ Settles down & gets into the work most days
____ Often tries hard even when work is challenging
____ Can push self most days even if work is hard
____ Tries to complete assignments
____ Is able to work independently much of the time
____ Can usually tell when has done a good job or not

D
____ Attends class nearly every day (3-4 absences)
____ Arrives to class on time nearly every day
____ Gives top effort some of the class period
____ Takes time to settle down & get into the work
____ Sometimes tries even when work is challenging
____ Can push self some days even if work is hard
____ Completes assignments just to get them done
____ Is able to work independently some of the time
____ Is not always trying to do a good job

F
____ Does not attend class every day (5+ absences)
____ Is tardy several times
____ Does not work unless required to by teacher
____ Needs teacher reminder to settle down
____ Gives up quickly when work is hard
____ Does not complete all assignments
____ Needs teacher help almost daily for work
____ Does not care whether has done a good job or not

Learner Traits

A
____ Is open-minded & willing to learn new things
____ Feels learning in class is worth doing & valuable
____ Thinks before acting & avoids being impulsive
____ Makes sure knows what to do & how to do it
____ Can handle constructive feedback from teacher & classmates
____ Keeps attention focused on class activities
____ Tries out strategies & new ways of doing things
____ Is willing to take a risk when learning is hard

B
____ Is open-minded & usually willing to learn
____ Feels learning in class is worth doing
____ Usually thinks before acting & is rarely impulsive
____ Makes sure knows what to do & how to do it
____ Can usually handle constructive feedback from teacher & classmates
____ Attention is usually focused on class activities
____ Tries out strategies & new ways of doing things
____ Usually will take a risk when learning is hard

C
____ Is sometimes open-minded & willing to learn
____ Feels learning in class is sometimes worth doing
____ Sometimes thinks before acting; at times impulsive
____ May start not knowing what to do & how to do it
____ Sometimes has difficulty handling constructive feedback from teacher & classmates
____ Attention is sometimes not focused on class
____ May be reluctant to try new ways of doing things
____ Sometimes will take a risk when learning is hard

D
____ Resists learning new things
____ Feels learning in class is often not important
____ Often does not think before acting; often impulsive
____ May start not knowing what to do & how to do it
____ Has difficulty handling constructive feedback from teacher & classmates
____ Attention is frequently not focused on class
____ Often reluctant to try new ways of doing things
____ Often will not take a risk when learning is hard

F
____ Is not very willing to learn
____ Feels learning in class is not important
____ Rarely thinks before acting; very impulsive
____ Starts not knowing what to do & how to do it
____ Can not handle constructive feedback from teacher & classmates
____ Attention is usually not focused on class
____ Is reluctant to try new ways of doing things
____ Will not take a risk when learning is hard

Cooperative Traits

A
____ Is sensitive to others & can work with classmates
____ Helps others feel comfortable being in class
____ Actively listens during class presentations and when others talk
____ Participates appropriately in class discussions
____ Remains focused on the assignment during group work
____ Contributes to orderly classroom environment
____ Supports the learning of other students

B
____ Is sensitive to others & can work with most peers
____ Helps others feel comfortable being in class
____ Is usually an active listener during class and when others talk
____ Participates appropriately in class discussions
____ Usually is focused on the assignment during group work & is rarely off task
____ Contributes to orderly classroom environment
____ Supports the learning of other students

C
____ Can work with some students & not with others
____ At times makes others feel uncomfortable in class
____ Sometimes an active listener during class and when others talk; sometimes interrupts
____ May be inappropriate during class discussions
____ Is focused on the assignment during group work only some of the time; may be off task
____ At times makes for loud class environment
____ At times interferes with learning of other students

D
____ Can only work with a few others in the class
____ At times makes others feel uncomfortable in class
____ May be an active listener some days & not other days; sometimes interrupts
____ Often inappropriate during class discussions
____ Needs reminding by teacher during group work to focus on assignment & not be off task
____ At times causes loud class environment
____ At times interferes with learning of other students

F
____ Does not work well with others
____ Often makes others feel uncomfortable in class
____ Rarely listens during class and when others talk; frequently interrupts
____ Is constantly disruptive during class discussions
____ Has to be watched by teacher during group work or will be off task
____ Frequently causes loud class environment
____ Often interferes with learning of other students

To: Action Researchers
From: Cathy Caro-Bruce

Re: Abstracts

As the school year winds down, and you work to complete your final report about your Classroom Action Research and findings, please take a few minutes to write an abstract of your study. This brief synopsis will be published in ***Voices from Madison: Issues and Ideas from Inside Schools***, a compilation of all of the studies completed by Madison Classroom Action Researchers from 1990 to the present.

Please use the following format to ensure consistency among the abstracts. Be concise. The purpose of the abstract is to help readers select which studies might be pertinent to their interests, not as a substitute for reading the study.

> Author, School
> Title of the Study. (Year completed)
> DESCRIPTORS OF FOUR TYPES, in one word or a short phrase:
> 1. Methods of Data Collection
> 2. Issue(s) Addressed in the Study
> 3. Subject
> 4. Grade
>
> A summary of the study, including the research question, method, focus, data collected, the findings, any unique attributes, description of attachments or appendices.

The average length of abstracts is one-fourth to one-third of a page. The attached examples may help you with ideas for your own.

Copies of the ***Voices*** directory of abstracts will be available from Cathy Caro-Bruce in the Staff Development Office, and on the district's web page (www.madison.k12.wi.us) by clicking on the Staff and Organization Development Home Page.

Thanks for taking the time to make your study more accessible to others! Thanks for all of your efforts with the action research journey!

EXAMPLES OF ACTION RESEARCH ABSTRACTS

Baumgardner, Nancy
Once a Buzzard, Always a Buzzard? (1997) Elvehjem Elementary
AVOIDING THE STIGMA ASSOCIATED WITH TRACKING, ABILITY GROUPING, STANDARDS / BENCHMARKS, GRADE LEVEL CRITERIA, MEETING THE NEEDS OF A WIDE RANGE OF STUDENTS, MATH, GRADE 5
This researcher documents the journey of this fifth grade team as it implements flexible grouping to address the needs of their students in math. The team seeks to align the math program with the NCTM Standards, and to provide instruction to large classes with a wide range of needs from talented and gifted students to fully included students receiving cross-categorical special education services. Their hope is that by pre-testing for each of the topics, they can group the students accordingly and reduce the range of needs in each classroom without the stigma associated with tracking. The researcher compares the journey to a remodeling project where one improvement always leads to another. Included are examples of assessments, a report card rubric, and student self evaluations. **STUDENT SELF EVALUATION, REPORT CARD RUBRICS, MATH ASSESSMENT TOOLS**

Donovan, Heidi J.
On Schools, Learning and Becoming Ourselves **(vol: 1998 Assessment/Health & Wellness) J.C. Wright Middle**
INTERVIEW, MOTIVATION AND SELF-DIRECTION, CURRICULUM, GRADE 6-8
Frustrated with students lacking motivation and self-direction, this teacher used surveys and personal interviews of individuals ranging in age from 13 to 70. The interviews focused on the question of when and how learners begin to take ownership of their own learning and become genuinely engaged and self-directed in their learning. The findings are summarized in the following categories: age of initial self-motivation, parental roles and impact, development of personal interests, influence of school environment, impact of teachers, impact of competition and cooperation. Data: **SURVEY QUESTIONS, INTERVIEW QUESTIONS**

Hammatt-Kavaloski, Jane
Learning By Teaching: Enhancing Academic Achievement Through Service-Learning (1997)
Shabazz City High
MINORITY STUDENT ACADEMIC ACHIEVEMENT, SERVICE-LEARNING, LEARNING THROUGH TEACHING, BLACK HISTORY, MULTICULTURAL ISSUES, ALTERNATIVE HIGH SCHOOL
Frustrated by poor academic achievement among alternative high school students on a Malcolm X research assignment, this researchers explored what happens when the staff adds a service-learning component. As part of class expectations, students were now expected to: complete a research project about the life, work and influence of Malcolm X, to develop an educational project which demonstrated their knowledge, and to use their project to teach 6th grade students at Sherman Middle. Jane examines the steps which were taken to implement this project, as well as the results this type of teaching had on student attitude and achievement. Student quotes lead to a genuine sense of the impact of the experience on students who traditionally have poor academic achievement. The number

of students passing the class increased over the same course passing rate for prior semesters. OBSERVATION, STUDENT COMMENTS, STUDENT SURVEYS, STUDENT GRADES

Mueller, Jennifer
The Multi-Age Journey--What Impact Has The Multi-Age Model Had On Students, Parents, and Teachers? (1995) Mendota Elementary
MULTI-AGE GROUPING, GRADES 1 & 2
As a result of careful reading and planning, a pilot of two multi-age grade 1 & 2 classrooms was approved at Mendota. After a first year with expected trials as well as successes, this pilot moved into a second year, which is documented by this study. Multi-age has pushed Jennifer to tailor the curriculum so that ALL children feel challenged and successful, and she has become more flexible in the physical classroom arrangement and planning. Rather than rely on activities dictated by textbooks, she seeks lessons that allow students at different levels to benefit and be challenged. Excerpts from student interviews and parent surveys give voice to those truly affected by the changes in her teaching. A bibliography of resources and a quick compilation of advantages to multi-age practice are attached. **Data: LITERATURE REVIEW, STUDENT INTERVIEW, PARENT SURVEY**

Starling, Betsy
Students' Reactions to Reading Prize-Winning Literature (1997) **Memorial High**
PRIZE-WINNING LITERATURE, STUDENT MOTIVATION, INTERNET, COMPUTERS, LIBRARY MEDIA CENTER (LMC), GRADE 11
This library media specialist worked with a junior English class and teacher to see if certain techniques influence reading motivation and selection of novels. The students each read different award-winning American novels and performed numerous assignments, including an Internet survey. Student work from the study is published on the Internet. The students enjoyed the novels and benefited from retrieving author and book review information. Appendices include a bibliography, the survey, student assignments, student reflections, and statistics. **Data: PRE- / POST- STUDENT SURVEY**

Swift, Ken
Inquiry Projects with Primary Students, Teacher Survival, Parental Involvement **(vol: 1998 Literacy)** Lapham Elemenary
STUDENT QUESTIONAIRES AND SURVEYS, CONFERENCES, OBSERVATION, STUDENT AND TEACHER JOURNALS, PARENTAL FEEDBACK, CROSS CURRICULUM, FIRST GRADE
Ken was intrigued and anxious about initiating inquiry-based projects with his first grade class. Experience with second graders the previous year had given him a sweet and sour taste. His question, "Can first graders and their teacher tackle inquiry projects and succeed?" set the stage for a ten week odyssey. This study describes the journey his class took investigating questions and topics of their own choosing. Ken discusses the importance and challenge of parental involvement in supporting such an endeavor. Student surveys and questionnaires inform the reader of how the "Great Blue" projects were perceived by the kids themselves. He concludes with ways he will change this adventure next year. **Data: STUDENT QUESTIONNAIRE, STUDENT SURVEY**

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Sample Agendas

- This section is a compilation of sample agendas that allow insight into what might occur at group meetings and reflects the ways in which action research develops over time. The sample agendas suggest how the participants learn about the action research process while talking about their questions and research. These agendas refer to activities and handouts in sections throughout the handbook. Use the samples as a starting place in creating your own agendas.

Monthly Tidbits from two experienced facilitators

Meeting 1

> Wide-eyed participants doing way too much listening. So much logistical information to cover...so little time.

> Set the tone of trust, respect, and confidentiality.

Meeting 2

> The group is asked to respond to a journal prompt at the beginning of each session.

> Favorite Warm-Up of the Year: Ask group members to share about someone who has had a major impact on their personal or professional life.

Meeting 3

> The group begins to ask questions of each other using active listening skills. Continue to build their understanding of action research.

Meeting 4

> Introduce our group to the importance of the word "focus." By the end of the session, each member should have a focused question and some concrete ideas for data collection.

Meeting 5

> Affectionately called this the "Month of Muck". Help those who are stuck in the question development stage to become "unstuck."

Meeting 6

> Smooth sailing for some, refocus for others.

Meeting 7

> Finally a full day for analyzing data and beginning first draft. The taskmasters have spoken...START YOUR WRITING!

Meeting 8

> Peer editing—yes, this means members need to come with first draft in hand.

Meeting 9

> Tie up loose ends. More peer editing.

Meeting 10

> Celebrate the process of growth and change, reflections on the year. Take photos. Bring special food.

Suggestions for Facilitators Session I

I. **Introduction/Welcome**
Do some kind of introduction to help people understand why they have gathered together. It may include some beginning information about action research.

II. **Check-In**
A warm-up activity is a good idea even with a group of people who already know each other. One of the critical defining features of action research is the trust that is built among participants so that they can talk openly about their questions and struggles and support each other. It is highly recommended that some time be spent at each of the beginning meetings to continually build group cohesiveness. Suggestions for the first meeting include... "who you are, where do you work, something you learned over the summer," etc.

III. **Getting Connected to Action Research**
Another round robin of responses could include, "What brought you to action research?" Participants explain why they signed up to be part of the group. In some groups, facilitators have planned this activity a little later in the meeting and asked participants to draw the journey on flipchart paper of how they got to this point in time in their career.

IV. **History/Context of Action Research in the District**
Share information on how the district has provided support and direction for this professional development activity. This could also include the national, state, and local perspectives as they have influenced this effort.

V. **Why Action Research**
Spend some time discussing why action research is a powerful staff development opportunity. Include in the discussion the need to systematically look at our work, the power of talking with colleagues for learning and support, the time to reflect deeply over a period of time in order to bring about change, the need to have teachers define what we know and have learned about teaching and learning, and the importance of sharing the knowledge that teachers are producing. We also talk about teachers as the sources/instruments of change vs. the objects of change.

VI. Traditional Research vs. Action Research

A good activity to begin to look at the differences between these two is to ask participants to think about, then list individually words and phrases which they associate with the word "Research." List these words/phrases on flipchart. Often the list has some negative connotations and a spirited discussion ensues. Then hand out the "Descriptors of Action Research." Ask the participants to describe what they see as differences between the two lists. Are there feelings attached to the lists? Facilitators can add their own comments to participant responses to help the group better understand the nature of action research as it differs from traditional research. It is important not to paint traditional research as negative and action research as positive. While there are some common features, they are also different and serve different purposes.

VII. Jigsaw Article Reading on Action Research

To do this activity, have a number of articles that give a general overview of action research. Bring several copies of different articles, depending on the size of the group. Have participants choose to read an article. Read the article individually, then have those people who read the same article meet together to talk about key ideas that the article talks about. (You can ask people to come up with 3-5 highlights.) Then, ask individuals to share with the large group those highlights that they identified.

VIII. Journals

Build time into every meeting for writing. Ask participants to write any thoughts they have about the meeting and/or action research so far. There are also prompts to which participants can respond.

IX. Questions or Focus Areas

Time might be spent talking about possible topics or questions that might be of interest to the group/individual. At this first meeting, it is not necessary for the teachers to have a clear idea of what they might want to do. This conversation is to get them thinking about possibilities.

X. Group Expectations/Ground Rules

Take time to talk about expectations and ground rules for the group. These could include:

>*Attend all meetings and be on time*. It is hard to build collegiality when people are absent. Call one of the facilitators if you are ill. Because we are a small group, you will be missed and your contributions will be missed.

>*Responsibility for your own learning*. Responsibility to help others learn. Usually an individual does a project with group support and input. It is up to the individual to ask for help and the group to offer.

>*Confidentiality is important*. What is discussed in meetings stays with the group. This is essential to build the trust of group members.

>*Don't get caught in a guilt trip*. Come to the meetings even if you haven't done what you had planned to do. We are all stretched and we don't want this project to put undue stress on you. The group will always help you get back on track.

>*End of project written report*. Make sure participants know that there is an expectation to have a finished product. Tell them that there will be lots of support for them throughout this journey.

Participants may have different contributions to establishing ground rules.

XI. Meeting Structure

Explain that these are their meetings and that they need to influence what happens. Explain that facilitators may play more of a directive role up front, but very soon others are encouraged to share responsibility for making the meetings their own.

The process requires a real individual commitment, not only when the action research group meets, but also outside of that time. At each meeting, each individual will have approximately 15 minutes to talk with the group. This is a time to talk about your work, your question, your insights. It is also a time to ask for help, to share your struggles, to describe your insights, and to update the group on how you are doing. This will be a precious time for you, so you are encouraged to come to the meeting having thought about how to best use your time. Fifteen minutes may sound like a lot now, but as time goes by, it will pass very quickly.

XII. Logistics

Take time to discuss any issues related to starting and ending times, substitutes, transportation, and of course...who will bring snacks. If there is an assignment, take time to review that.

XIII. Check-Out

End with some sort of individual reflection. Posing a question to the group and having everyone write in their journals, handing out a feedback sheet so that the facilitators can get a sense of how people are thinking and feeling, or giving verbal feedback are all possible strategies. Build this into every meeting.

Suggestions for Facilitators Session II

I. Check-In

In most groups, it has been a few weeks or perhaps a month since the group has been together. It is always good to take time to learn more about each group member as a person. You might ask participants to recall something positive that happened in their classroom, share a success, or talk about someone who has had a major impact on their life. Remember the key to building trust among participants is giving people the time to get to know each other in a safe environment.

II. Getting Connected

Have the group collectively recall what happened at the last meeting. You might ask what stood out from that meeting. You might ask what they told other colleagues about the meeting, what they remember about action research, or about the things they have heard about action research since the last meeting. Make sure every-one's voice is heard early in the meeting.

III. Agenda Overview

A challenging aspect of action research is how to get the participants to take charge of their learning from the beginning. At these early meetings, the facilitators usually have new information plus a process that is needed by the group in order to begin their research. Facilitators should always share the agenda at the beginning of the meeting so that participants know what the expectations are and can influence the agenda, if necessary.

IV. Generating Topics

This is a good meeting to delve more deeply into possible topics. Even if you were able to touch on this at the first meeting, there were also many other issues and concerns which had to be addressed. Some group members will come in with a solid grasp of what they want to study, while others won't have any idea. The group can list possible topics, problems, or issues on the board. They can respond to open-ended sentences, brainstorm possibilities, use the "Table of Invention" or other strategies. Hopefully, this will let participants understand the breadth of possible research areas.

V. Formulating a Question

The group needs to spend time working on formulating a good action research question. An activity that seems to work well is to have each participant pick a topic of their own or one that the group generated and write a question. Before beginning this activity, talk about how we are just practicing, and that we will do this activity in such a way that people don't have to worry about having this question judged by others.

Each person takes 5-10 minutes to write down a possible question. The facilitator then asks each person, one at a time, to read their question very slowly to the group. They are then asked to read it again so that people can really hear it. The charge of the group is to listen very carefully to the question while it is being read and to think about qualities or criteria which will result in a good action research question.

When everyone in the group has finished, the facilitator can ask the group to write down words or phrases which they would include when describing a good action research question. The group could do this orally and build on the suggestions that are made. Facilitators can add to the list of criteria based on important ideas they want to communicate.

Facilitators can ask participants to go back to the question they wrote and rewrite the question. Remember, this is just practice!

You may want to have participants read examples of research questions written by previous participants.

Depending on your read of the group, you might want to ask each person to share what they are thinking about at this stage in terms of a topic or question. Make sure everyone has the opportunity to speak.

VI. Speakers

It is valuable for action research participants to hear from people who have gone through the experience. Bring in one or two people to tell their story, sharing their question, explaining why it was a question for them, identifying the struggles they faced and what they learned from the experience, and describing how the group helped them. It is also a good way to recognize past participants and to give them practice talking about what they learned.

VII. Journal Writing

Plan time for writing in journals. Use a prompt based on what happened at the meeting or another one.

VIII. Check-Out

In closing the meeting, structure the activity so that everyone speaks. It will give you an opportunity to find out what people are thinking.

Suggestions for Facilitators Session III

I. Check-In

The ritual of a check-in at the beginning of each meeting informs participants that the meeting is beginning. It is an opportunity for the group to connect again, to energize the participants, and to focus the group on the work of the day. This warm-up or check-in may relate to their lives outside of school (personal check-in) or in their classroom (professional check-in).

II. Sharing Feedback from Participants

If you chose to collect any feedback at the end of the previous meeting, this would be a time to share some comments from the group, as well as answer questions which have emerged.

III. Agenda Overview

It is always important to let participants know where the group is headed and how their time will be spent. Ask for any additional items which the participants want to include on the agenda.

IV. Journal Writing

Some facilitators put writing in journals at the beginning of the meeting. This time will focus the thinking of the participants and move them into a reflective mindset. You can use one of the prompts or you can offer this as a free writing time. Try to structure this time at different points in the meeting and ask teachers which they prefer. Some may still balk at having to write at all; but, they know that this is an expectation and that with practice, it will get easier.

V. Developing Questions (Continuing)

Coming up with a question will be a longer process for some in the group than others. There are many strategies to help people think about the questions which interest them. The "Table of Invention" will encourage participants to think about questions from different perspectives. Looking at questions that others have explored in action research reports, and why they chose those questions is another strategy to help participants focus their own question. If needed, continue to give strategies to help them define and refine their questions.

VI. Active Listening Skills

Using the information in the handbook or a handout of your choosing, talk with the group about what it means to be an active listener. You will need to discuss and reinforce these skills throughout all meetings. You may even need to address this topic more directly if the need arises.

VII. Talk Time

At every meeting, everyone needs time to talk about the question they are pursuing. Before you begin this time, which will become the major portion of the time at your future meetings, review with the group the handout entitled "The person who is sharing the work needs to be doing the work." The strategy of listening and asking questions is absolutely essential to the reflective action research process.

Each person will need approximately fifteen minutes to talk and respond to questions. Depending on the size of your group, you may have to adjust this. If you meet more than once a month, you may not need to have everyone talk at every meeting. If you have fewer members, you may be able to extend each person's time.

VIII. Data Collection

Even though this is a rather full meeting, you may want people to begin thinking about data collection. Review the section and see what you might want to use at this stage. The important idea is that even if you're not sure of your question, you may want to collect data on your topic because beginning of the year data is essential to your thinking over time. Sometimes the question will emerge from the data, or the data will show participants that they already know the answer to the question they are pursuing. Next month, plan to spend more time on data collection.

IX. Feedback

Oral or written—it doesn't matter. Build in the expectation that participants will talk about how their meetings are going and what they can do to continue to improve them.

X. Check-Out

As a way to bring each meeting to a close, select an activity which encourages reflection of the time spent together. A written evaluation or oral comments are both appropriate ways to end the meeting.

Suggestions for Facilitators Session IV

I. Check-In

Select an activity which will energize the group and connect the participants to the focus of the day.

II. Agenda Overview

Let participants know where the group is headed and how the time will be spent. Ask for additional items which the participants want to include on the agenda.

III. Whips...Getting Connected

To get people into their action research, do a few quick rounds of open-ended sentences. No comments or feedback here.

> When I think about my action research, I...
> If I had unlimited time, I would...
> The thing that worries me the most about action research is...
> What I'd really like someone to help me with is...

IV. Cause and Effect (Fishbone) Diagram

The purpose of this activity is to identify the root causes related to the topic/issue each participant is pursuing. The description of this process is in the handbook. To help everyone understand how to do this on their own, demonstrate the process using a group member's questions.

Have participants work in groups of 2 or 3 to fishbone each other's topics/questions. This will take a good chunk of the meeting. You could also have the small groups work on one person's question or have individuals work on their own fishbone. The down side of this is that the individuals lose the good questioning and input of the small group. Individuals could also do the fishbone activity back at their school with the people who are connected to the question and can add value to the process.

V. Sharing Time

Ask the group members to share their question as it stands today. Ask the following questions: What insights did you gain from doing the fishbone activity? Did it help you to become more focused? What information do you already have about your question? What do you need to find out? What data will help you learn more about your question?

VI. Data Collection

Spend more time going through the data collection handouts in the notebook, especially emphasizing the idea of "triangulation." Use the "Triangulation Grid" to help participants think about and plan how they will collect data about their question. Again, encourage the group to collect data at this stage because they will learn from the beginning-of-the-year data.

VII. Action Planning

Using any format that works for you, have each participant develop a plan for data collection at this stage. Put participants in pairs to talk through their plans. Partners should listen to the whole plan, then ask questions which will help their partner focus. Have partners revise their plans as needed.

VIII. Journal Writing

Use a prompt (from the handbook) or ask the participants to write about how they are thinking differently now compared to when the meeting started.

IX. Assignment

Talk to three people about your question (colleague, principal, or friend). What is their reaction to your question? What feedback did they give you?

X. Check-Out

Ask the participants for feedback about the meeting.

Suggestions for Facilitators Session V

I. Check-In

II. Agenda Overview

III. Journal Writing

Ask participants to focus on: How can I use the data I've collected to better understand my question? Where are the gaps? and What do I do with the data?

IV. Descriptive vs. Evaluative Data

Take participants through the differences between collecting descriptive and evaluative data.

V. Sharing Time

Make sure that every participant has 10-15 minutes to talk about their topics/questions and what they have done since the last meeting. Ask if using the action plan sheets helped them. If individuals struggle with moving on, try to summarize for them what you heard that they are doing and what they will do next.

VI. Analyzing Data

Remind the group that this is not a linear process and that individuals are always analyzing their data and then collecting new data. Analyzing data involves asking questions which will influence the directions action researchers will take, and continually synthesizing what they are learning. Action researchers will do a more systematic analysis at the end of their project, but it is important to analyze the data as it is collected.

VII. Assignment

Ask participants to collect data on their students from the perspective of both descriptive and evaluative data. Ask them to pay attention to how the data are different.

VIII. Check-Out

Ask the participants for feedback about the meeting.

Suggestions for Facilitators Session VI

I. Check-In

II. Agenda Overview

This may be a time when participants =start to doubt themselves. They see the end of the school year in sight and are often not sure that what they have done is really of value, especially to others. It is the responsibility of the facilitators to address this issue and to keep the momentum moving forward for each of the participants.

III. Journal Writing

IV. Sharing Time

Have participants share what they have done with their question/topic since the last meeting. What did they learn from collecting descriptive and evaluative data? Where do the participants need help? How can they use their sharing time with the group to benefit them the most?

V. Check-Out

Ask for feedback on the meeting.

Suggestions for Facilitators Session VII

I. Check-In

II. Agenda Overview

III. Journal Writing

Have participants respond to the following: "How can I tell my story, what I have learned, to others? What is most important to communicate?"

IV. Analyzing Data

Review handouts on analyzing data so that participants have a strategy to use. Encourage the group to design whatever strategy works for them. Ask participants what they have learned so far from analyzing their data.

V. Sharing Time

Ask participants to emphasize data collection and analysis as they share their work. What new questions are emerging?

VI. Beginning to Think about Your Write-up

Group members can use a more constructivist approach by generating ideas for what they think needs to be included in their final write-up or they can use a framework which is more like a checklist.

Tell participants that at the next meeting they will be sharing some of their beginning writing with a peer. Encourage them to use the framework for what should go into the write-up, either one that the group designs or a checklist, to begin this writing.

VII. Check-Out

Get feedback on the meeting.

Suggestions for Facilitators Session VIII

I. Check-In

Ask each participant to share a question or concern they have at this stage.

II. Agenda Overview

III. Open-ended Sentences

Ask participants to respond to the open-ended sentences "Writing about My Action Research." These questions focus on writing the final paper. This feedback will help you as you support the participants at this stage.

IV. Peer Editing

Have participants work with a colleague. Participants take turns reading aloud sections of what they have written and getting feedback. Peers should make suggestions based on the "Qualities of an Effective Action Research Report" in the Writing section.

Ask the group what they are learning as they edit with their peers.

V. Sharing Time

VI. Work Time

Give group members time to consult with their peers and work on their projects.

VII. Check-Out

Ask for feedback about the meeting. What will participants do before the next meeting?

Suggestions for Facilitators Session IX

I. **Check-In**

II. **Agenda Overview**

III. **Journal Prompt**
Describe the impact that the action research experience has had on you. Share insights with the group.

IV. **Peer Editing**
Have participants read sections of their papers aloud to the entire group. Ask for feedback from the group.

Decide on a process for participants to edit and give feedback on each other's work. In some small action research groups, participants read everyone's papers. In most groups, participants give feedback on 2-3 group members' papers.

V. **Sharing Time**

VI. **Work Time**
Give group members time to consult with their peers and work on their projects.

VII. **Planning for May Celebration**
Ask group members what they want to do to celebrate at the last meeting.

VIII. **Check-Out**
Ask for feedback about the meeting. What will participants do before the next meeting?

Suggestions for Facilitators Session X

I. Check-In

II. Agenda Overview

III. Celebrate the Process of Growth and Change

A potluck dinner is one key to a successful celebration. Certificates are handed out. Usually the facilitators have a small gift for each participant. One of the favorite gifts is to go to a toy store and purchase a little car (Hot Wheel™) for each participant. The car is symbolic of CAR (Classroom Action Research.) Facilitators try to connect the specific names of the cars to the individual qualities of the participants.

IV. Evaluations

Fill out the evaluations for the staff development department. Build in other group opportunities to evaluate the experience.

V. Photos

Take photos to go with write-ups.

VI. Hand in Final Papers

VII. Check-Out

Ask for feedback about the meeting.

10

Getting Started in a School District

■ This is the story of one school district's path to developing action research as a powerful strand in its staff development program. In this section, you will find strategies to develop support that may be adapted for your school district.

What's in this Section:

- **"What Happens when a School District Supports Action Research?"**

  A chapter from *Educational Action Research: Becoming Practically Critical*, Noffke and Stevenson, eds., Teachers College Press (1995) describing the story of how action research started in the Madison (WI) Metropolitan School District. A summary of lessons learned throughout the years follows the chapter.

- **Action Research Timeline for the Madison Metropolitan School District**

  A timeline highlighting the critical events leading to the growth of action research in the school district and as a leader in a statewide network.

- **Key Features which Guide the Madison Metropolitan School District Action Research Program**

  A list of important guiding principles on how the school district program is organized.

- **Action Research Flyer**

  An example of the flyer which is sent to all staff in the spring describing the action research experience and the possible groups to which they can apply.

- **Credits and Commitments**

  Handouts with information about the credit options available and the expectations for participants.

- **Consent Guidelines and Letters**

  Guidelines helping participants to understand when they need to obtain consent from parents and staff, and examples of letters which they can modify to meet their needs.

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What Happens When a School District Supports Action Research?

Cathy Caro-Bruce & Jennifer McCreadie

In 1990, 10 staff members of this school district sat around a table intensely discussing their action research questions. The two facilitators, feeling the excitement and uneasiness that come with stepping into unfamiliar territory, encouraged, probed, and reassured the eight elementary school teachers as they worked through the process of inquiring about their topics. Another 12 middle school teachers and 12 elementary principals participated in action research the following year. In 1992–93, we were joined by four additional facilitators, and almost 40 elementary and middle school teachers were split among four action research groups. Over 40 teachers became action researchers during 1993–94, and 10 facilitators led five groups.

How did action research grow in this district? How can a district support and sustain a large number of teachers and principals interested in participating in this experience? Several critical elements have nurtured the growth of classroom action research in the Madison Metropolitan School District, and the implications may be helpful to other districts interested in establishing an active action research program. In this chapter, we will describe the background and context of how action research has grown in the district; the organization and process being used to help teachers and principals work on their questions; the value of the experience as perceived by the participants; and some lessons we have learned about implementing classroom action research in our school district. This is Madison's story, but aspects of it could easily apply to other districts.

The Madison Metropolitan School District is located in Madison, Wisconsin, the state capital and home of the main campus of the University of Wisconsin. This is a city where education has been valued and supported by the community. With approximately 24,000 students, the district has 29 elementary schools, nine middle schools, and four high schools. The teaching staff comprises approximately 2,100 elementary, middle, and high school classroom teachers.

BEGINNINGS

Classroom action research did not arrive in Madison for the first time in the fall of 1990. Rather, commitment, patience, and making the most of opportunities contributed to its development over time. For 2 years, beginning in 1985, a staff development specialist in the district sought funding to try this idea. She had heard about action research at a teacher center conference and thought it would be an interesting and stimulating staff development activity. After justifying the use of a pocket of research money to fund released time (to pay substitute teachers), she embarked on this independent project. Seven teachers from kindergarten through high school participated the first year, five teachers during the second year. Although teachers felt the experience was worthwhile, as with many initiatives, it was seen as this individual's project.

When this staff development specialist left the district after the second year of action research, she hoped that what she had begun would be sustained. At this stage, a partnership was born, which continues, bringing together the authors of this chapter, a staff development specialist and the coordinator of research and evaluation for the district. In the fall of 1987, with a little knowledge, a strong inclination, a collection of books and articles, and notes from the previous facilitator, we designed a 6-hour course to introduce district staff to the concept of teachers researching questions important to them. We thought that if we could build some knowledge of and interest in the process, teachers would sign up when money could be found to support them. When just two people registered, we canceled the workshop.

During the 1987–88 school year, we presented information about action research to a district leadership group and to elementary principals. Action research was met with mild interest, and several suggestions were made for possible sources of money for released time, which we felt was essential to attract and sustain participants. We went to the schools where special money had been allocated to support racial integration. Teachers were interested in action research, but their money had already been designated for other projects, and they were hesitant to take on yet another commitment.

At the same time, some dramatic changes in the demographics of the school district's student population were being recognized. Dialogue increased among staff about trying to meet the needs of more diverse, more challenging students. Teachers were finding that what used to work in their classrooms was no longer appropriate or successful. Some district funds were directed toward schools with high levels of special needs. In the beginning, the efforts were designed by individual schools, but it became apparent that district resources had to be organized more effectively. Minority student achievement became a district priority. Continuing to seek funding, we talked with principals at schools that had minority student achievement grants, but their money was committed to other efforts. Our determination and search were eventually rewarded, however.

For 2 years, the district had been supporting a project called "Cultural Differences and Classroom Strategies." Elementary school teachers had been participating in this effort to help teachers increase the repertoire of instructional strategies they used to meet a variety of needs of students from different socioeconomic and ethnic backgrounds. The third year of this project (1990–91) was to be spent helping teachers to implement the ideas they had been discussing and to learn what was making a difference to students' success in school. Action research had the potential to enable teachers who had participated in the Cultural Differences and Classroom Strategies project to explore these ideas more deeply. The Cultural Differences and Classroom Strategies planning committee supported the idea and allocated funds for the project.

Finally, there was a source of funding and an organizational connection to action research. The budget would cover the cost of substitute teachers for a total of 6 full days of released time (a combination of half- and full-day meetings), materials (notebooks, references, and journals), and printing (handouts and final report).

THE ACTION RESEARCHERS

In the spring of 1990, we described action research to all elementary principals and asked them to encourage teachers to consider participating. Information and an application form were sent to all elementary teachers in the district (about 800). Eight teachers applied, and they became our first group. We felt that we were finally on our way, although at the time it was not clear what that meant.

The 1990–91 year was a learning experience every step of the way. At times, it seemed that we were barely staying ahead of the group. Numerous hours were spent planning the next session, analyzing what took place at the previous session, and continuing to educate ourselves about action research. But the time was invaluable in what we learned.

We learned, for example, that if teachers settled on a question too quickly, they might narrow their focus and choose topics that might not sustain their interest over the year. Yet, if they did not decide on a question after several meetings, the likelihood of completing a quality project within the time frame was lessened. Journals, we discovered, cannot be a required activity. For some teachers, it was a helpful way to record their thinking over time; for others, it was merely a task to be completed and to feel guilty about when they didn't. We learned the value of having more than one teacher from a school participate in the group. When back at their schools, these teachers could talk about their questions and were able to support each other through various stages of their projects. As we learned more about the action research process, we gained confidence in what we were doing.

We began to look ahead to the following year. Since we had worked with a group of elementary teachers, we thought it would be worthwhile to offer this opportunity to middle school teachers. We were curious about whether middle school teachers would be interested in this kind of experience, and how it might differ from our work with elementary teachers. At about that time the Cultural Differences and Classroom Strategies budget was cut in half. With that decision went half the funding for released time for teachers. However, what initially seemed like a blow later turned into an opportunity.

At a middle school principals' meeting, we described classroom action research and asked the principals to support one or two teachers from their school budgets (e.g., Minority Student Achievement, Talented and Gifted, School Improvement Planning funds). If they would commit half of the costs for each teacher, the Cultural Differences project budget would cover the other half. The response was enthusiastic. Principals indicated that many teachers were attempting to look at their instruction and curriculum from different perspectives, and the principals appreciated the importance of supporting those efforts.

A casual comment by the assistant superintendent for secondary education during our presentation to a meeting with middle school principals took action research into an exciting and entirely new direction for our district. As she watched principals become enthusiastic about the possibilities, she announced, "We should have action research for administrators, and I already have my question!" Everyone chuckled, and we smiled and promised to "follow up with you on that suggestion." What resulted from that brief exchange was the formation of the school district's principals' action research group. The assistant superintendent for elementary education followed up by writing a memo encouraging principals to participate. He discussed it with each principal as he met with them for their conferences at the end of the year. We believe that his personal contact and encouragement were persuasive. Although skeptics in the district told us there was no way a group of principals would participate, when the application forms were returned, 14 principals had signed up. The 1991–92 action research groups ultimately consisted of a classroom action research group of 12 middle school teachers from seven middle schools and a principals' action research group of 12 elementary principals.

AN ACTION RESEARCH CULTURE

Teachers' and principals' action research has gradually become part of the culture of the Madison Metropolitan School District. During the winter of 1992, a panel of teachers and principals shared their action research questions and experiences with the Education Committee of the Board of Education. The presentation was designed to inform the Committee about this project, but also to start to build a financial commitment to action research. The response was enthusiastic, with one committee member asserting, "This should not be a question of how can we let people participate in action research, but how can we not have *everyone* doing this!" It was time to look ahead to the next year (1992-93).

Having facilitated a small group of elementary teachers the first year, and recognizing that we were novices at what we were doing, we thought it would be appropriate to offer the experience to another group of elementary teachers the following year. When we discussed this with our group of middle school action researchers, they responded, "But we've been talking this up at our school," and "I know other middle school teachers who are interested in participating."

It was time to rethink the direction for action research in the district. It was apparent that this project had moved beyond the pilot stage and needed to be integrated into the future directions of the district. After several discussions with the assistant superintendent for instruction, it was decided to offer classroom action research to elementary and middle school teachers. When 41 applications were returned, we were overwhelmed! This number represented teachers from 11 elementary schools and seven middle schools. The only way that we could support so many teachers in this process was to involve more facilitators. A few teachers dropped out during the summer, but with the addition of teacher-facilitators, the district still had to support half the costs for 40 teachers.

It had become clear that interest in action research was growing through a combination of factors, including publicity sent to all district teachers and administrators, encouragement from principals, informal discussions with past participants, and dissemination of the write-ups of teachers' work to the schools.

ORGANIZATION AND PROCESS

The structure and process we use with our action research groups have been developing along the way and we expect that they will continue to evolve. The two of us work as a team, representing staff development and research and evaluation in our district. This combination of interests and backgrounds is a strong partnership for action research. We bring the skills, knowledge, and experience of our separate specialties to our groups, and we learn from each other. Through our collaboration, we feel that we gain as much and have at least as much enthusiasm for action research as any group member. However, by the third year, we came to feel that it was time to share the leadership, because of both the increasing numbers of participants and our desire that action research not be dependent on individuals. The two of us enjoy working together and appreciate the support of a colleague in planning and conducting the process, so we suggested that pairs of teachers facilitate two of the groups, while we would lead the other two groups. We shared with other facilitators all of our references and materials about the structure, process, and organization of this project, but encouraged flexibility and adaptation to suit their own styles and the needs of their groups. We are pleased to see the kinds of change and innovation other facilitators and their groups bring, and are excited about this new level of involvement in action research.

Goals and Expectations

As we began to facilitate action research, based on experience with other groups, we established three general expectations for all participants: (1) that they would attend meetings regularly; (2) that they would participate in discussions; and (3) that they would write about their projects. These expectations have proven to be valid and we have continued to use them. Attendance and discussion are part of the responsibility of any team or group member. They are also the kind of investment that yields maximum benefits from the process. The importance of writing has been affirmed over and over and will be discussed later.

Goals of the action research project in this district have continued to be that:

- Each participating teacher will identify the problem or question s/he will pursue.
- Participating teachers will be encouraged to examine and assess their own work and then consider ways of working differently.
- Participating teachers will work collaboratively with each other, with course facilitators, and with other staff members in their schools.

Action research in our district is a process that takes the full school year (or sometimes more) from beginning to end. We start by getting to know each other, introducing the process of action research and the structure of the meetings, distributing materials, and explaining our expectations. The materials distributed include a binder, a journal notebook that we don't require but recommend that everybody at least try, articles, copies of other teachers' reports, and handouts ranging from a list of group members to a project time line to tips for giving constructive feedback. Participants have told us that they perceive us as organized, nonthreatening, and enthusiastic, and that they appreciate the opportunity the district is providing them. During early sessions, we present some information and resources. We are quite talkative and directive in the first meeting or two, after which we draw the participants into more active roles and eventually diminish our own roles.

The Group Process

The group support and interaction that occur throughout the year are an integral part of the action research process. We believe that group members need to feel at ease with each other in order for this to be successful. Therefore, we begin the year, and early sessions, with informal "warm-up" activities in which people gradually get to know each other and become more comfortable with the group. Over the course of the year, meetings vary according to topic and stage in the process, but the basic structure allows for each member to have 10 to 15 minutes to talk about his/her question and get support, encouragement, references, and suggestions from the rest of the group. At every meeting, participants share their questions, concerns, frustrations, and progress. This process enables all participants to become interested and involved in each other's projects. We emphasize the need to facilitate others' learning by asking questions that help individuals to think more deeply or in different ways about their questions rather than just offering solutions to problems they present. Participants are creative and thoughtful in their interactions with colleagues. The generosity, caring, and investment of individuals in each other's projects are apparent.

We agreed that our second-year groups of 12 to 15 were too large. Dividing each group into two discussion groups deprived members of the opportunity of being involved in everyone's research. Based on 2 years of experience, we felt that 8 to 10 was the optimal group size, which we confirmed in the third year. This group size allows every participant significant opportunity to participate, while still exposing all to a range of topics and issues.

Through a variety of articles and readings, including examples of action research done by teachers in Madison and elsewhere, our action researchers begin to get a sense of what action research is and can be. This enlightenment may come during the first meeting but more often takes longer. After two or three meetings, most participants have an initial grasp of action research. Some participants feel constrained by traditional research paradigms. These can be intimidating, even aversive to some teachers, while they are comfortable and desirable to other participants. Visits to the group meetings by previous years' action researchers give new participants the opportunity to hear what others' experiences have been and to ask questions about concerns or interests. Other resource people are invited to visit meetings as requested by the group members or as they seem worthwhile to us. Examples of such visitors include faculty members from the University of Wisconsin who can share their experiences with action research at other institutions and sites, and action researchers from elsewhere.

Finding the Right Question

Beginning with general topics of interest, participants develop possible questions to pursue. Through a series of exercises, participants generate criteria for "good" action research questions. Participants each write a question about some topic of interest, which is not necessarily the question they will end up with. Then each participant reads a question aloud and the group listens carefully without comment. Based on writing their own questions and listening to others, participants generate criteria for "good" action research questions. Groups fairly consistently suggest certain characteristics. Such criteria include a question that: is clear and concise; is "doable" or manageable; will yield observable or measurable evidence; is meaningful to the action researcher and others; will make a difference to the researcher and others; has some tension and cannot be answered yes or no; and will sustain the researcher's interest or passion over the course of the year. The group and facilitators help each member to refine individual questions, a process that can happen almost instantly or take months.

The group is introduced to a variety of research methods so that participants can make informed choices about data collection techniques that suit their questions. Triangulation, gathering data from a variety of sources using a variety of methods over time, is stressed to help the participants choose approaches for gathering their own data. We emphasize that the data-gathering methods chosen should be relatively easy for the researcher to use in the course of normal classroom activities with the resources available, as well as appropriate to the question being asked.

Throughout the action research process, participants discuss problems, issues, concerns, insights, and observations emerging from their inquiry. The process can be never-ending as action researchers iteratively plan, act, observe, reflect, plan, act, and so on. However, we do require that they pull together their experiences in this project and their findings to date at the end of the year. In the course of the year's meetings, we schedule considerable amounts of "work" time in which action researchers do library research, read, develop data gathering instruments, analyze data, confer with colleagues—whatever is most useful to them at the time. They eventually come to the struggle of analyzing data, making sense of the muddle, and, finally, write about their questions, inquiry, and findings.

But I Haven't Written a Paper Since I Was an Undergraduate . . .

Although writing a report is intimidating to some action researchers, it is a clear expectation of this project from the start. We emphasize that they will have plenty of support and help from us and from each other as we progress through the year. Group members are generally excited about the opportunity to read or hear about other teachers' research, and recognize the importance of their own contributions. While we encourage alternative means of communicating about action research projects, written reports are still an expectation, and they are the most widely disseminated form of information about the inquiry conducted. Participants in action research enjoy the opportunities it gives them to be learners, as well as to be respected and sought as professionals and experts with knowledge and experience to offer. Creating and disseminating reports enhances the professional image and self-concept of these educators. But this is not the only reason for writing. We have found that participants feel proud of the accomplishment of completing their projects and have a greater sense of closure after writing reports than before. Some participants also feel that they come to a sense of clarity or understanding through writing that they did not achieve earlier in the process, even though they had already learned from their action research and reached some findings or conclusions. While writing may not be intrinsic to action research, the participants and facilitators in this project have seen enough benefits to warrant the continuing expectation of a written report. Despite this emphasis on writing and reports, it is also clear that this is often a starting point for further reflection and not a conclusion in any sense.

The Value of Action Research

At some time during each meeting, we ask participants to give us oral or written feedback about the process. This evaluative information helps us to identify needs of individuals and the groups and to modify plans, if necessary, to meet those needs. At the end of the year, participants share with us their perceptions about the value, effectiveness, and substance of action research and about its applicability to their work.

Action researchers in this district have conducted systematic inquiry into questions or issues that are important and meaningful to them. They report that they have become more reflective in their practice. They have grown professionally, developing a greater sense of efficacy and professionalism. They also have learned that their experience and expertise are valid and valued. Group members have pursued their questions independently or with partners, but have had the interest, resources, and support of a whole group of colleagues as they pursued their inquiry. Their questions have led to more questions and to further inquiry and learning. Some teachers have found that when they shared their projects with their students, the students became involved and contributed meaningfully to the research.

We are now gathering data from past action research participants about their retrospective perceptions of the experience and the influence that experience has had on their teaching practice. We hope to trace some of the effects that ripple out from action research participants to their colleagues, their students, and their practice beyond the initial year of involvement.

CONCLUSIONS, OR LESSONS LEARNED (SO FAR) ABOUT IMPLEMENTING ACTION RESEARCH IN OUR SCHOOL DISTRICT

It takes time and effort for a district to embrace action research. While this may not be true in many other settings, some people in this school district are reluctant to support an activity that has a perceived connection to the research of university settings. Some participants need time and different experiences to let go of their negative impressions of traditional research. Some struggle with this problem the entire year, and those who are not participating in action research find it even more difficult. In our district, commitment to action research has grown through sharing the experiences of past participants, making presentations to a variety of groups, holding informal discussions at individual schools, and learning about action research in other professional contexts.

Finding a meaningful context to which action research can be connected is critical. Unless teachers and principals perceive that what they will learn will make a significant difference in the success of their students, the chance of people wanting to become involved is minimal. Connecting the themes of action research to district and personal priorities and future district directions is necessary.

Moving action research from the initiative of individuals to a district commitment is essential. While it is crucial for districts to support pilot projects and encourage risk-taking among their staffs, finding funds and trying to convince others of the worth of new efforts is time- and energy-consuming. When the leadership of a district decides that action research is an important direction, it shifts from the ownership of individuals and then can be evaluated in the context of district priorities.

Funding released time for teachers to do action research results in teachers feeling valued and renewed. It is hard to overestimate the importance of giving teachers time away from their classrooms to meet and talk with their colleagues about issues that are important to them. Mostly, teachers spend many hours in late afternoon or evening classes working on their own professional growth. While the action research meeting time did not have the same kind of impact on principals because they do have regular opportunities to meet as a group, the principals spoke often about the importance of creating time to discuss meaningful issues with their colleagues, away from their buildings. (The opportunity to earn credits from the district for professional advancement, from the state to meet recertification requirements, and from the university is another incentive and reward for participating in action research.)

Sharing the costs with the school leads to increased commitment and interest by principals. When principals started sharing the cost of released time, they more actively supported teachers pursuing action research questions. They were also more willing to designate funds, knowing the district was contributing to expenses.

The more layers of support, the more likely action research will succeed. The layers of support for participants in the action research process include the group of colleagues from around the district in their action research group, another teacher-participant from the same school, past participants from other groups, and facilitators working with individuals. Facilitators of the action research process have found support from their collaborative efforts with co-facilitators, University of Wisconsin professors, colleagues elsewhere, and other action research facilitators. These different layers have all served a variety of purposes in strengthening the process, the skills, and the quality of the experience of all those involved.

THE FUTURE

Action research has a strong base of support in this district, including its incorporation into the district's strategic plan, ***Madison Schools 2000***. As of the end of the 1992-93 school year, about 100 teachers and principals have participated in action research projects in the district and the number is growing. We don't know how many more undergraduates, student teachers, cooperating teachers, supervisors, and active professionals have been involved in or touched by action research through university programs.

One of the possibilities we envision for the future is a Madison area action research network. Staff members from the school district and university faculty members formed a partnership to organize and support the first Madison Area Action Research Network Conference in the spring of 1993, at which area teachers, student teachers, and principals presented their work to colleagues. Interest in building an action research network was discussed at that conference. We are eager to explore with others ways of disseminating the action research experience and findings. We also look forward to a time when several studies will have been done on the same topic, building bodies of practitioner knowledge in specific areas.

We plan to continue to meet with other action research facilitators, in our project and beyond. We hope to encourage more action researchers to become facilitators of action research, and we are happy to share our experiences with others who want to start action research groups or projects. Other groups we would like to see emerge include action research groups within schools, as well as action research on a single topic or question, either within or across schools. Two special topic groups were formed for 1993-94: re-structuring the ninth grade and technology in the curriculum. We would like to see a group of action researchers continue beyond the current framework of one year, ending with a report. Group members could represent mixed grade levels, roles or responsibilities, and topics or subject areas. Madison high school teachers haven't yet had an opportunity to form an action research group, but we hope they will become involved soon. Principals and other administrators should have further opportunities to conduct action research in this district. Others may suggest topics, in addition to those we can imagine. The possibilities are endless.

We hope that the concept of action research will evolve in this district, both with our involvement and independent of us. We believe that it has tremendous potential to stimulate the professional growth of those involved, to acknowledge and create teachers' individual and collective knowledge and wisdom, to solve problems and enhance instructional practice, and to provide leadership in the profession.

Lessons Learned about Implementing Action Research in a School District

1. It takes time for a district to embrace action research, and it takes a commitment by individuals to champion the effort.

2. Finding a meaningful context in the school and district to which action research is connected is critical to success.

3. Moving action research from the initiative of individuals to a district commitment is essential.

4. Funding release time for teachers to do action research results in teachers feeling valued and renewed.

5. The voluntary nature of this program and the ability of teachers to choose their research questions leads to strong ownership by individuals for their professional growth.

6. Creating a supportive environment allows teachers in an action research group to think deeply about their practice and take action to improve the teaching and learning in their classrooms.

7. It is essential to develop strategies to share and communicate the knowledge that is produced by teachers with colleagues and the wider community.

Classroom Action Research
Madison Metropolitan School District Timeline

1985-86/ 1986-87	Pilot action research groups; independent efforts, unconnected to district focus; K-12 (seven the first year, five the second year); connected to the interest of one individual
1987-88	Presentations to district leadership groups about action research to build interest (polite applause) Offered a district after school workshop on action research; two signed up
1990-91	First CAR group with eight elementary teachers; grew out of a two year initiative, "Cultural Differences and Classroom Strategies"; connected to third year of project (implementation); funds from project to release teachers to meet during school day
1991-92	Two action research groups (11 elementary principals and 12 middle school teachers) based on targeting these two groups; schools share costs of funding release time
1992-93	Informational flyer sent to all staff; 28 teachers participated in two groups—elementary and middle school groups; schools share cost of funding release time Madison Area Action Research Network formed; first annual spring conference held
1993-94	Continued growth; over 40 participants; first time we offer topic groups; five groups include: Middle to High School Transition and the Ninth Grade; Technology; two elementary groups and a middle school group; schools share cost of funding release time Spring conference held in Madison (275 attended)
1994-95	Approximately same number of participants in the following groups: Elementary; Technology; Integrating Curriculum; Middle and High School; schools share cost of funding release time Spring conference held (250 attended)

1995-96 Approximately same number of participants in the following groups: English as a Second Language; Race, Class, Gender and Learning; Curriculum Integration, and Elementary and Middle; schools share cost of funding release time

University of Wisconsin-Madison credit available for the first time

Action Research of Wisconsin Network formed; coordinate annual conference, offer workshops, publish newsletters 2-3 times/year

Spring conference held in Madison (200 attended)

Awarded Spencer/MacArthur Professional Development Grant to study the nature and impact of action research in the Madison Metropolitan School District (two year study)

1996-97 Approximately same number of participants in the following groups: Assessment; Meeting the Needs of All Learners; Library, Media and Technology; and Curriculum Integration; Staff Development Dept. funds cover release time

Spring conference held in Madison (175 attended)

1997-98 Big leap in numbers! Over 70 people participate in the following groups: Librarians; CGI (Cognitively Guided Instruction) Math; Assessment; Health and Wellness; Literacy; K-12 Potpourri; Service Learning; and Technology; five district budgets, in addition to staff development, cover release time for teachers

Spring conference held in Madison (175 attended)

1998-99 Another 70+ participate in the following groups: Brain Compatible Teaching and Learning; Elementary Literacy; Secondary Literacy; Teacher Mentoring; Experiential Education; Resiliency; Six Trait Analytic Writing; and a Continuing group; five district budgets, in addition to staff development, cover release time for teachers

National Staff Development Council Award for work based on Spencer Grant (Non-Dissertation Award)

1999-2000 Eighty teachers and support staff sign up to participate. We have a principals group again! Other groups include: Brain Compatible Teaching and Learning (second year); a school-based group growing out of a Comprehensive Schools Reform grant; two Special Education groups focusing on cross-categorical programming; a group on Race, Class, Gender, Culture, Language, and Learning; and a Teaching-Learning group with an emphasis on math and literacy.

The Action Research of Wisconsin planning committee meets to re-think our purposes after difficulties trying to find presenters for the annual conference.

On-going opportunities for our facilitators to work with other districts and make presentations at conferences.

Key Features which Guide the Madison Metropolitan School District Action Research Program

- > Staff participate voluntarily in action research groups. It is critical to have group members who are committed to the process and to the work of action research.
- > Groups are typically made up of eight to ten people. If the group is too small, there is less likelihood of a rich dialogue. If the group is too large, there is not enough time for everyone to talk about his/her question.
- > Teachers are released from the classroom to attend meetings. Financial support for the substitutes comes from a variety of district budgets.
- > Groups meet once a month during the morning throughout the school year. In the months of February, March and April, participants are released for the entire day. They meet with their group in the morning and work on their projects in the afternoon.
- > Groups are co-facilitated by teachers or support staff who have participated in action research in the past. Materials and support is given to the facilitators. Facilitators meet approximately every six weeks as a group to address problems and challenges, and to provide leadership to the district in action research.
- > Action research groups are focused on topics of interest and priority to the district. For example, action research groups have included: Literacy; Race, Class, Gender, Language and Learning; Brain Compatible Teaching and Learning; Assessment; Social Studies and Technology; Resiliency; Librarians; Cognitively Guided Instruction (CGI) Mathematics; Meeting the Needs of All Learners; Principals; Cross-Categorical Programming; and Six Trait Analytic Writing. Group members design their own action research questions in the context of the topic group.

Classroom Action Research

To: MMSD STAFF (Teachers, Support Staff, Principals, Administrators)
Re: Action Research 1999-2000 (Applications due MAY 13, 1999)

ACTION RESEARCH GROUPS ON TEACHING AND LEARNING

The following topics will be the focus of the 1999-2000 Action Research groups:

- ALGEBRAIC THINKING
- BRAIN-COMPATIBLE TEACHING AND LEARNING (a continuing group)
- LITERACY: FOCUSING ON ASSESSMENT
- PRINCIPALS
- RACE, CLASS, GENDER, CULTURE, LANGUAGE AND LEARNING
- SOCIAL STUDIES AND TECHNOLOGY
- SPECIAL EDUCATION: CROSS-CATEGORICAL PROGRAMMING

As our district works to ensure the success of all of our students, we continue to look for strategies to support staff in this effort. Action Research is an opportunity for a group of individuals to explore together questions they have about their professional practice, their students, and ideas, issues and questions embedded in school and district goals.

WHAT IS ACTION RESEARCH?

Action Research is a process in which educators examine their own practice systematically and carefully, using the techniques of research. Observations, interviews, surveys, and journals are typical methods which participants use to investigate their queistions. It is based on the following assumptions:

- > Educators work best on problems they have identified for themselves.
- > Educators become more effective when encouraged to examine and assess their own work and then consider ways of working differently.
- > Educators help each other by working collaboratively.
- > Working with colleagues promotes the professional development of educators.

(Heidi Watts)

WHY IS ACTION RESEARCH NEEDED?

We have learned, that in order for change to occur, people must construct their own meaning and connect what they are learning to the context in which they work. Teachers and administrators in action research groups discuss their practices in depth, learn from what others are doing, and document what is making a difference. The "action" implies that action researchers do something differently in their practice or in their school on behalf of students. People learn about their own question as the year unfolds, but they also learn about others' questions in an informal discussion setting. Collaboration and reflection are at the core of this powerful staff development process.

ON WHAT KINDS OF TOPICS WILL THE GROUPS FOCUS?

Action Research begins with a question or a problem. Sometimes people come with a topic or question in mind, but this is not necessary. A key feature of the action research process is the development of your question over time. During the 1999-2000 year, we will offer opportunities for staff to investigate their own questions in several areas. Applicants should sign up for the group(s) that are of most interest to them.

I. ALGEBRAIC THINKING (K-8)

The journey to reaching a goal of all students completing algebra by ninth grade has many paths. This group will explore what it takes to get kids ready for and be successful in algebra. Teachers might look at indicators of algebraic thinking across grade levels. Others might choose to focus on the impact of different factors (teacher expectations, homework, attendance, class participation) on students' success in math/pre-algebra/algebra. At the core of discussions will be the opportunity to talk about what learning mathematics with understanding really means.

II. BRAIN-COMPATIBLE TEACHING AND LEARNING

(a two-year experience)

This is the second year of a group which began during the '98-'99 school year. Only participants who were involved during the first year will continue. Current participants do not need to re-apply.

III. LITERACY: Focusing on Assessment (K-8)

Student learning, rather than curriculum or lesson plans, needs to be at the heart of education. The richest information about student learning comes from daily observation and assessment, which then informs the next teaching points. This group will bring together participants' questions around literacy, including topics such as reading instructional strategies, the Six Trait Analytic Writing model, a balanced literacy program, student research and coaching, with the implementation of quality assessments that document student learning and inform instruction.

IV. PRINCIPALS

Principals also need a time and place to think deeply about important topics over a sustained period of time. This group will bring principals together to focus on those questions important to them in their leadership role. Examples of possible topics (sent in by principals) include: creating a responsible and caring learning environment, changing a school culture, addressing violence and difficult behaviors, curriculum alignment, technology, high stakes testing, staff development, working with an inclusion model, parent involvement, teacher teaming, in-school alternative options, educating highly mobile students, schools in the 21st century, and math programming. This group will meet monthly, alternating between mornings (1/2 day) and late afternoons.

V. RACE, CLASS, GENDER, CULTURE, LANGUAGE AND LEARNING (K-12)

Some of the hardest questions with which teachers struggle are related to race, class, gender, culture, language and their impact on student learning. In the past, teachers have focused on issues of equity, tracking, instructional practice, parent involvement, culturally relevant teaching, assessment and how these areas promote or are barriers to students' learning.

VI. INTEGRATING TECHNOLOGY into the SOCIAL STUDIES CURRICULUM (K-12)

Participants will explore questions they have about their professional practice, their students, or ideas, issues and questions related to the integration of technology into the social studies curriculum. Examples of questions that teachers might investigate include: How do I help students find information on the Internet and determine its reliability? How can electronic resources and other technology tools improve student research in social studies? How does technology serve as a catalyst for restructuring teaching and learning, and redefine roles in the classroom?

VII. SPECIAL EDUCATION: CROSS-CATEGORICAL PROGRAMMING (K-12)

As a way to address the challenge of how to best provide services to students using cross-categorical programming, an action research group will take on some of the hard questions and issues which are surfacing. Participants will explore topics, such as which service delivery models work well; or how to build effective collaborations among general education, special education, and support staff; or looking at staff development needs common to special ed and regular ed staff.

WHO WILL PARTICIPATE IN ACTION RESEARCH?

Participants will be teachers, administrators and support staff from throughout the district. Eight to ten people will have the opportunity to be part of each group. We encourage more than one person from a building to apply, so that colleagues can support each other and perhaps work together in this endeavor. (This does not imply that people will be working on the same question, although that is an option.)

WHAT KIND OF TIME COMMITMENT WILL BE INVOLVED?

The groups will meet once a month for half or full days throughout the year. Different groups meet on different days and weeks so as not to stress the substitute schedule. Participants must make a commitment to their learning and to the group by attending all of the meetings. Participants write a paper at the end of the experience sharing the story of what they have learned. Much guidance and support is given to participants with their writing during the year.

WHAT HAPPENS AT MONTHLY MEETINGS?

Participants learn about the action research process while investigating their question. They form a research question; they collect data; they analyze their data; and they take actions based on what they have learned. At each meeting, everyone has time to talk with the group about their work and the progress they are making. Other group members ask questions and offer guidance and support by helping group members think more deeply about their questions.

WILL CREDIT BE AVAILABLE?

Action Research group members will receive D.P.I. Credit, as well as Professional Advancement Credit for independent work done outside the contract day. Participants will also have the option of choosing U.W. graduate credit (Department of Curriculum and Instruction) as either a special student or a student currently enrolled in a graduate program. This three credit course is listed in the second semester timetable.

HOW IS ACTION RESEARCH FUNDED?
The cost of this experience, which covers six full days of released time plus materials, will be funded by a variety of budgets including, Language Arts, Library/Media, Mathematics, Research and Evaluation, Social Studies, Special Education and Staff and Organization Development.

HOW DO I GET MORE INFORMATION?
Cathy Caro-Bruce (266-6456) from the Staff and Organization Development team coordinates this project. If you have questions about action research, please call her. There are also many people who have participated in action research during the last nine years. Ask your own staff members as well for information about the experience.

HOW DO I SIGN UP TO BE PART OF THIS GROUP?
Please fill out the attached sheet and give it to your principal/supervisor for his/her signature (unless you are a principal signing up!) It is important that your principal/supervisor is supportive of your attendance at these meetings. Return this to Cathy Caro-Bruce, Doyle Admin. Bldg. on or before May 13. Based on the response, we will notify people about their participation before the end of May.

Fill out the enclosed sheet and return no later than May 13, 1999.

Credit Information

Professional Advancement Credit

- > for work done beyond the contract day
- > must record hours and what you've done on time sheet
- > sheets can be handed in at monthly meetings
- > 15 hours is equal to one PAC (independent work); cannot receive partial credit; can earn more than one PAC, but no more than three (45 hours.)

D.P.I. Credit

- > D.P.I. Credit is given for all of our meetings during the school day (48 hours for 1999-00 school year).
- > You will not receive D.P.I. credit for the independent work you do on non-contract time.
- > For those who do not have a life license, UW credit can be used toward license renewal.

University Credit

- > You will have the option of signing up for a UW course on Action Research and receive credit for this experience.
- > You may sign up as a Special Student or as part of a graduate degree program.
- > The course will be listed in the Winter offerings. You will register the same way you register for any UW course. We will give you information about registration at the appropriate time.
- > Ken Zeichner, Curriculum and Instruction, is the professor who will work with us and can answer questions related to UW credit. It is important to make the decision about whether you are doing this for UW credit in the fall. It is too complicated to change this during second semester.
- > To receive credit for the course, you must attend the sessions throughout the year, participate in activities, and hand in a final paper in the spring of the year.
- > If you are earning UW credit, you may not earn PAC.

Informed Consent

Prior to going too deeply into your action research work, it is critical to determine what type of information you need to share with parents, staff, and students, and to obtain consent from them if needed.

GUIDELINES:

- Inform parents of what you will be doing with action research, i.e. the nature of your question, what you hope to learn, how you will collect data, the process of meeting with colleagues monthly, what you will do with the findings, etc. Explain how you will protect the names of students in the written product. Include a statement which explains that if they don't want their child to participate, to inform you. This is called passive consent.

- Determine if you need to obtain active consent:
  This would be appropriate if:
    - the focus of your study is on a single child or a small group of children;
    - you wish to access student records;
    - the nature of your topic could be considered controversial; or
    - if you have any concerns and wish to have the consent on record.

- Remember to have letters translated for parents for whom English is their second language, and/or communicate directly with parents for whom literacy is a concern.

- Consider whether you wish to obtain passive or active consent with staff you include in your action research work. A letter early in the year informing staff of your intentions or a brief overview at a staff meeting is recommended.

Items to Include in a Consent Letter

> Brief topic statement for the research project

> When will the project run? Over what period of time?

> How will the child be involved? Is there completion of some task? Involvement in some curriculum modification? Will the child be surveyed, interviewed or observed?

> How often will the child be involved?

> Will records from the student's file be used as part of the research?

> What are the potential benefits and risks to the student? to the teacher?

> Will an analysis of the student's work be included in the research?

> Who will have access to the information and how long will it be kept?

> Will names be changed to protect confidentiality?

> Include a voluntary participation statement with the right to withdraw at anytime without consequence

*******SAMPLE INFORMED PARENT CONSENT LETTER*******

Date

Dear Parents,

I would like to include your child in a research project I am conducting in my class around a new approach to teaching and assessing math.

During the next month, I will ask the children in the class to complete a few of math problems to determine what strategies they are using. Then I plan to introduce a series of new math problem-solving strategies to them. At the end of a three-week period I will again ask them to complete similar math problems to find out what strategies they have added to their "toolkit." To see if they have kept using those strategies over time, I plan to assess them again two months later. In addition, I will use their other in-class math work to provide even more information about which problem-solving strategies they are using.

To help me get a better understanding of how they are mastering problem-solving strategies, I thought it would be helpful to ask them how they liked math. I have created a short survey that I will ask them to complete which will only take about 5 minutes.

Your child's practice with math ideas at home and other places away from school can reinforce these strategies, so I have created another brief survey for parents to complete. It should only take about 5 minutes. I will send that home in the next few days.

I am the only person who will have access to the information I am collecting in this project. I do plan to write a report summarizing the results and that report will be shared (along with other teachers' projects) with teachers across the district. I will change all of the names used in the study so no one is identifiable.,

Including your child's information as part of the report I write is your decision. I don't anticipate any unusual risks because I am using strategies that other researchers have tried in the past without any problems. And I am hopeful that by sharing the results with other teachers, the benefits of this approach to math can be useful to more students. If now, or at any time prior to the end of the project, you want to have your child's information removed from the project just let me know. Withdrawal from the study will in no way affect your child's status at school, including grades. I can be reached at XXX-XXXX.

(EXAMPLE FOR ACTIVE CONSENT:

If you agree to let your child participate, please sign the bottom part of this letter and return it to me with your child. If you have questions about the project you'd like to discuss with me before agreeing to allow your child to participate, please call me at XXX-XXXX.)

Sincerely,

(Researcher's Name)

Yes, I give my permission for my child to participate in the study on (_____research topic_____).

____
(Student's full name)

____
(Today's Date)

____
(Parent or Guardian's signature)

******SAMPLE INFORMED TEACHER CONSENT LETTER*******

Date

Dear Teacher,

I am a teacher at _______ school and I am conducting an action research project around the topic of collaborative teacher planning. I am interested in learning about the experiences of teachers who plan with at least two other teachers on a regular weekly basis and how they feel it affects their classroom processes. I plan to summarize the results in a report that will be published along with other teacher's action research reports and then shared with staff around the district. Your name or school will not be identified in my report.

I am requesting your help by allowing me to interview you. The interview should last no more than 30 minutes and would be scheduled at your convenience. In addition, I have a brief questionnaire with other related aspects that I will leave with you to complete and send back to me. The survey will take no more than 10 minutes. Once I have completed the interviews and compiled the survey results I am planning to share a summary with each of the participating teachers in a focus group discussion. The focus group will be held at a convenient location and will last no more than 90 minutes. At the focus group, I will ask you to react to the summary of the earlier data collection. Based on the focus group comments I will make any appropriate revisions. I am the only person who will have access to any information collected during the project.

The decision to participate is yours, and deciding against it will not result in any consequences for you. There really are no risks to participating, as the issues are relatively common. The benefits of participating are to help broaden my knowledge (and those who read the report) about the concept of common planning time. If you have any questions, please feel free to call me at XXX-XXXX.

Sincerely,

(Researcher's Name)

Yes, I agree to participate in the study on (_____research topic_____).

_______________________________ _______________

(Teacher's full name) (Today's Date)

____

(Teacher's signature)

Facilitation Skills

■ Many action researcher facilitators have not had the experience of working with their colleagues in this unique role. This section provides some guidelines for facilitators, as well as a describing a structure to support the on-going challenges and needs of facilitators.

Role of Facilitators

- Plans meeting agendas and materials.
- Acts as a process guide.
- Focuses energy of group on a common task.
- Models good listening and facilitation strategies.
- Makes procedural suggestions.
- Uses flexible timing to meet needs of group.
- Protects group members.
- Looks for ways to improve how the group can do its work better.
- Arranges access to other people or materials.
- Acts on behalf of the group in other settings.
- Respectfully takes on behaviors of group members who are interfering with the group accomplishing its work.

Specific Guidelines for the Facilitator

- Tell the group that you are there to serve them, and that you'll check with them from time to time to see if you are pushing too much, not enough, etc.
- Don't talk too much.
- Be an energizer.
- Keep the group moving along on their issues.
- Listen closely and watch that group members are listening to each other.
- Make sure that each individual's voice is heard.
- Protect group members from personal criticism. Focus on the issues, not the personalities.
- Set a positive tone.
- Protect the group from one person dominating.
- Respect silence, but model questions which open the dialogue.
- Don't get involved with the content.
- Don't be defensive.

Reprinted with permission. Adapted from Joellen Killion, "Group Facilitation" workshop.

Suggestions for Facilitators

(based on evaluations and discussions)

- Be clear about the expectations up front.
- Differentiate action research from curriculum development. Keep the focus on the questions of participants.
- Plan time for participants to write at each meeting (vary between open-ended and assigned topics). As the year goes on, you may want to assign specific pieces which would go in their papers.
- Have feedback sheets at each meeting to assist you in your planning.
- Encourage people who are confused and less certain in the beginning. This is an important and rich time.
- Encourage partnerships within the group (obviously, can have different questions, but can also work on the same one); also encourage bringing other people in their school into the process (helping with data collection, interviews, etc.)
- Plan to meet with individuals if they need it, especially on the days when participants are released for the whole day. Comments about the time to work with individuals were very positive.
- Try to stick with time frames so that everyone has time to talk at each meeting.
- Encourage people to begin collecting data about their topic (questions or issues they might be curious about) early in the year, even if they haven't finalized their question.

ACTION RESEARCH FACILITATORS MEETINGS

About every six weeks, the co-facilitators of each of the groups come together to talk. For many of these teacher leaders, this is their first time facilitating a group of their peers and they are often presented with some challenging situations.

At each meeting, the group hears an update from each pair of co-facilitators, as well as questions or particular challenges from that group. The other facilitators help to problem solve.

Facilitators bring articles to share. They talk about processes they have used with their groups for others to try. The district coordinator of action research describes upcoming opportunities for group participants, as well as the on-going implementation of the program. Most importantly, the group of facilitators provides leadership and direction for action research in the district.

Comments from Facilitators

Thinking and talking about what is happening in each of our action research groups became the focus of our Action Research Facilitator meetings. It is a safe place to talk about what's going well, where we are struggling, and to ask other facilitators for help. "What do you do with the teacher who can't settle on a question?" "What strategies have you used with people who tend to dominate the discussion?" The time spent working on these issues was invaluable. Facilitators look thoughtfully at the process in our meetings so that they are continually making improvements.

Facilitator Process Sheet*

Date Group

Briefly describe the way your group meeting for this month was structured. Consider the roles, that questioning, writing (including journaling), reading articles, sharing of teacher stories, and feedback may have played in the meeting.

What was the tone of the meeting? How was that tone created?

Note any special or challenging moments...

For the next meeting, we'll be sure to...

---

*Feel free to omit any questions that don't apply to a meeting, or add others that are pertinent but have been left out. This is meant to be quick and painless. This form is intended to help you process with your co-facilitator, share with other facilitators, and help to better understand the action research process. Bring it to the next facilitators' meeting.

Resources

■ Over the years, action research has spun off in many new directions. This section contains newsletters from a statewide action research network, a report from a Spencer-MacArthur grant looking at the impact of action research, and other references to continue learning more about action research.

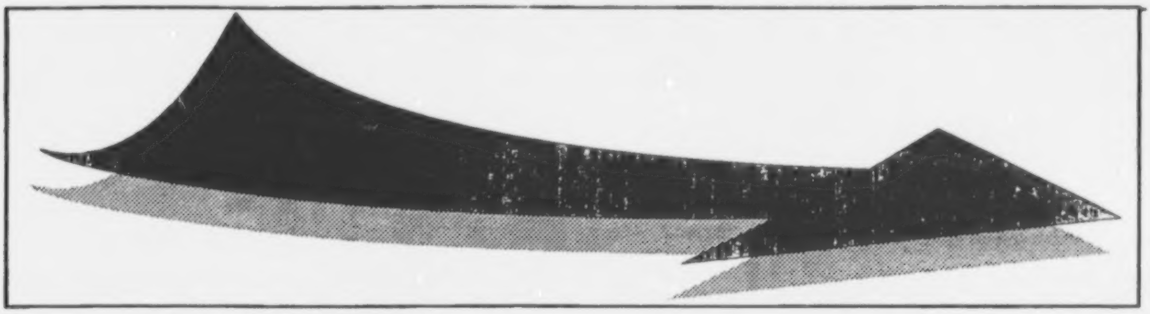
The Action Research Network of Wisconsin (A.R.O.W.)

seeks to improve the quality of education in Wisconsin by promoting action research through:

> collaborative networking,
> recognizing the on-going work of practitioners, and
> sharing the knowledge produced by action researchers.

A.R.O.W. Network News

Volume 1, Number 1 Action Research of Wisconsin (A.R.O.W.) Network November 1995



INTRODUCTION

By Cathy Caro-Bruce

From little acorns, we know what happens. This first newsletter of the **Action Research of Wisconsin (A.R.O.W.) Network** may not be more than a tiny sapling, but we know that it is a great beginning. For the past three years, many of you who have attended the Action Research Conference have encouraged those of us involved in the planning to expand on the conference. How can we network with each other? Can we figure out a way for people to learn some basic processes for getting started? Are there people who can answer questions and mentor us? How about a newsletter to share information and provide opportunities for networking?

The first issue of the A.R.O.W. Newsletter is being sent to people who attended past conferences and those who have expressed interest in action research. Once you join the network, you will receive the newsletter as part of your membership. Our initial goal is to have two issues a year and eventually expand beyond that. Your membership will also go toward supporting the conference, but we will look for other ways to expand on the services offered to you as members.

Each issue will feature:
- an in depth focus on some aspect of the action research process (this issue's topic is "Focusing A Research Question");
- resources including where to publish your action research, book or article reviews, grants available;
- information about conferences, either reviews of those past or specifics about those upcoming;
- featured work of a particular action researcher; and
- strategies for networking with other action researchers.

We think you will find this newsletter an interesting and useful resource for keeping informed about action research in Wisconsin and elsewhere.

Planning Committee
The following people have contributed to the conference plans and follow-up activities. You are welcome to join the group by attending any of the meetings.

Jim Beane, National Louis University
Barbara Brodhagen, Sherman Middle, MMSD
Cathy Caro-Bruce, Staff Development, MMSD
Lisa Kass, Wingra School
James Kusch, UW-Whitewater
Mary Mercier, Edgewood College
Jane Meyers, UW-Madison
Vivian Sims, Allis Elementary, MMSD
Bob Tabachnick, UW-Madison
Kathleen Travers, UW-Madison
Nan Youngerman, Crestwood Elementary, MMSD
Ken Zeichner, UW-Madison
Robin Marion, UW-Madison, Editor,
A.R.O.W. Network News

Planning Committee Meeting Dates

Meetings are held from 4:00 p.m. to about 5:45 p.m. at Edgewood College in the Lower Level Conference Room in the Library Building. Refreshments are provided compliments of Edgewood College. Upcoming meeting dates:

January 24 **February 8**
February 26 **March 25**
April 18 **April 25**

Mission Statement for the A.R.O.W. Network
The purpose of the Action Research of Wisconsin (A.R.O.W.) Network is to improve the quality of education in Wisconsin by promoting action research through:

- •collaborative networking;
- •recognizing the on-going work of practitioners; and
- •sharing the knowledge which is produced by action researchers.

We will do this by:

- •providing information about action research;
- •recognizing practitioner expertise and encouraging practitioners to inform policy and reform in teaching and teacher education;
- •providing support to Wisconsin educators who want to do action research;
- •facilitating the publication of the work of Wisconsin educators locally and nationally;
- •providing a forum for dialogue and reflection which supports the continuous development of educators;
- •creating networks throughout the state which provide opportunities for mutual sharing and support.

Did You Know...
that teachers from the Madison Metropolitan School District are developing seven video programs this year which feature the work of action researchers ?

Programs, which will be shown on the district cable channel, will be one half hour in length and will combine footage of the teachers in their classroom with interviews of both teachers and students. These will be aired several times per month in Madison, and will be available to people outside the district who are interested in seeing examples of teachers reflecting on their practice. Watch for more details.

Interested in contributing to this newsletter?
Contact Robin Marion (608) 263-4637, or Cathy Caro-Bruce (608)266-6456.

Save This Date in 1996!
A.R.O.W. Network Conference
(formerly MAARN Conference)
Next year it will be on
April 29
at the Sheraton Inn and
Conference Center, Madison, WI.

What Is Action Research?

By Bob Tabachnick

As the name announces, action research is research about action, research taking place in the midst of action. Its great strength is its responsiveness to particular situations. It is supple enough to change to accommodate the changes continually taking place in classrooms and schools as part of the action of teaching, of learning, of administering schools, of preparing teachers to teach, of living and learning in a community. The point of classroom and school action research is to have the people who care and know the most about the answers (teachers, principals, and their collaborators--who may be children, parents, student teachers or college professors) ask questions about what happens as a result of teaching, and what actions seem to have what consequences for children's learning in and out of school.

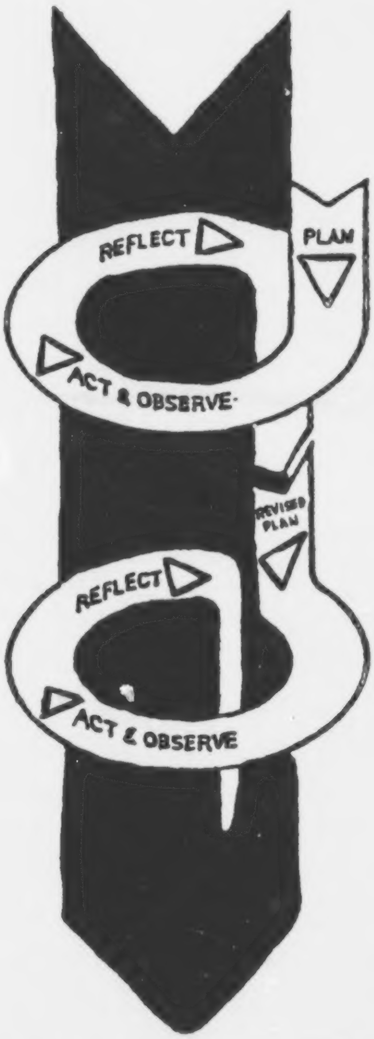
Some people who are very practiced in doing action research have shared patterns for doing action research that work for them. That's what the so-called "action research spiral" is about. An action research spiral begins with a question. The questions are often about doing things in school, but they could look beyond the classroom to whether the results of classroom action research will make life easier for children out of school, or to how teachers can use and honor the cultural resources and strengths that children bring with them to school. Part of the question is a kind of reconnaissance: What is actually happening now? Is the situation that the question asks about really there and does it have the expected shape?

Question and reconnaissance lead to some invented action or strategy to try to create results of teaching that would be satisfying. Some data are systematically gathered to provide a basis for deciding what to think about the action and what to do next. The data can be records of children's talk or other student behavior, or a collection of drawings, or a book of stories or essays or a display of science projects, or a display of math constructions, or a videotape of a dance or dramatic production, or written answers to questions. Somehow the person or people doing the research try to decide what the data mean and what new and deeper questions those collected data raise, and the process goes on.

Action research is a social activity. It works better if the teachers and collaborators who do it are part of a group with whom they can share ideas, share problems and uncertainties, and share triumphs. To generalize beyond the specific situation in which the research was done, there must be a connecting human being, to link the action research to another time and place. The teacher researcher can be such a link to future classes or different children. Someone in the action research network can provide such a link to another classroom situation altogether.

That's one way to think about action research but it isn't the only way. For example, while the sequence of the "action research spiral" seems logical, the activity of action research doesn't always happen in that order. People may find themselves forced to work alone for a time. In all cases, though, action research is something more than talking and thinking about teaching. The ideas are taken to action in schools, classrooms, and communities with the ultimate aim of strengthening teaching and vitalizing learning.

Below is one diagram representing the action research spiral. From: S. Kemmis & R. McTaggert, The Action Research Planner, *Geelong, Australia, Deakin University Press, p.11.*



Focusing A Research Question With Support From Colleagues

By Nan Youngerman

Asking a meaningful question that strikes the balance of being neither too broad or too narrow is one of the first challenges for an action researcher. A question, the point of departure for every reflective practitioner, grows naturally out of an individual's day-to-day practice. Members of an action research collaborative can play a supportive role in helping a colleague define his / her research question, using the powerful and non-judgmental "Collaborative Focusing Question Process."

An invaluable tool that addresses real concerns of members, this process resembles a brainstorming session. All ideas are accepted and evaluated afterwards by the practitioner based on detailed notes taken by a colleague and his/her own assessment of what is a best next step.

The group facilitator begins by outlining the steps the group will follow and the roles group members play. The facilitator directs the process, redirects the group as necessary, checks with the presenter to be certain the group is on target, and summarizes as the group moves from stage to stage.

One group member at a time presents his/her potential research question or area of concern. The presenting person tells any background information that will help the group understand his/her question, ask productive clarifying questions and ultimately offer constructive suggestions for proceeding with the research process.

Often the presenter reframes the question during the process as a result of new insights from the group's clarifying questions or constructive suggestions. The challenge for group members is to put themselves in the presenter's situation and ask questions and offer suggestions that support this research question. At no point is evaluation or response to any question necessary.

Often concluding with excitement, the presenting person usually spontaneously thanks the group for their

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full attention and the amazingly wide range of helpful ideas drawn from colleagues' varied professional experiences and expertise. A less formal discussion may follow as individual group members discuss the many stimulating connections to their own practice. Focusing on one person's question helps that individual, brings out a myriad of ideas for all to consider, and strongly establishes the collaborative nature of action research.

For additional information, contact Nan Youngerman via e-mail: neyounge@facstaff.wisc.edu

Guidelines for Developing Research Questions

(Generated by one Action Research Group 9/95)

1. Can it be implemented? Is it do-able?
2. Is the language clear and free of jargon?
3. Is there data that, when collected, will begin to answer the question?
4. Is it specific enough?
5. What kind of an impact does it have?
6. Is it generalizable to other situations or settings?
7. Will findings about the question be useful?
8. How practical is it to the daily life of the classroom?
9. Does the question contain some tension?
10. Does it have potential to move along your thinking?
11. Are you passionate about learning more about the issue addressed in the question?
12. Will it really make a difference?
13. Does it avoid yes or no answers?
14. Has the question considered the audience for the resulting findings?

About The 1995 MAARN Conference

By Lisa Kass

On May 8, 1995, the Madison Area Action Research Network (previously MAARN, now A.R.O.W.) held the third annual conference at the Holiday Inn - West in Middleton, Wisconsin. The crowd of 253 people met from 3:30 p.m. until 8:30 p.m. Welcoming remarks and introductory statements were given by Cathy Caro-Bruce and Nan Youngerman. Afterwards, teachers, administrators, support staff, student teachers, university faculty and parents attended three round table sessions chosen from among over twenty offered.

The round tables were the heart of the conference, where all the participants were able to share and learn from one another. As the presenters shared their action research projects, questions were raised and addressed about the findings. New teaching strategies were discussed. Some of the topics included: encouraging reading homework; integrating the arts; reading collaboration between first graders and high school students; and why some students display apathy towards history. Still other topics highlighted: an explanation of the action research process, generating questions, and discussions about how the knowledge gained through action research can and should be used. Topics varied from theater to technology, to teacher research in Europe, to eighth grade motivation, to recycling.

Among the comments received from participants were statements such as, "great presenters"..."great food"... "great opportunity for networking"... "interesting discussions" and "great organization." Thanks to all of the presenters for their time and effort! Thanks also to the following sponsors:

Madison Metropolitan School District
UW - Madison School of Education
National Louis University
Edgewood College
Wisconsin Center for Educational Research
DPI's Connecting the Curriculum Project.

Thank You

Action Research Resources

By Ken Zeichner

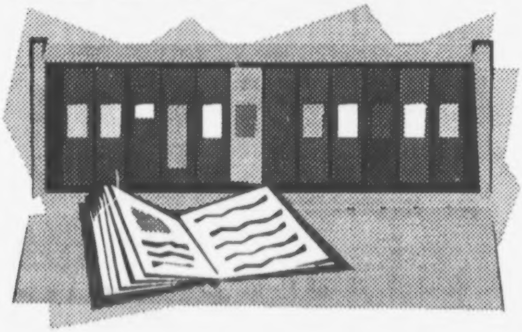
Sources of Action Research Studies

Abstracts:

*Madison Metropolitan School District Action Research Reports. Publication of the studies of teachers and administrators who have participated in the district's staff development program in action research. *See the last page of this newsletter for more details about the collections of studies.* Contact:
Cathy Caro-Bruce, MMSD, 545 W. Dayton St, Madison WI 53703 (608) 266-6456.

*The CRESS Center, University of California - Davis has published abstracts of studies from its Teacher Research Program and makes individual studies available for a small cost. Contact: The CRESS Center, Division of Education, University of CA, Davis, CA 95616-8729.

*The Fairfax County Public Schools has published a book of abstracts of action research studies completed by teachers and administrators and makes individual studies available for a small fee. Contact: Fairfax County Schools, Office of Research and Policy Analysis, Walnut Hill Center, 7423 Camp Alger Ave., Falls Church, VA 22042.



Journals:

*Teaching and Change, NEA Professional Library and Corwin Press, Karen Zauber, Editor, NEA, 1201 16th St. NW, Washington DC 20036 (202)822-7785.

*Teacher Research: The Journal of Classroom Inquiry, Editors: Brenda Power, University of Maine, Orno and Ruth Hubbard, Lewis and Clark College, Portland OR.
Contact: Teacher Research Journal, Johnson Press, 49 Sheridan Ave., Albany, NY 12210.

*Educational Action Research, Triangle Journals LTD, PO Box 65, Wallingford, Oxfordshire OX10 OYG Oxfordshire, United Kingdom.
Email: journals@triangle.win-uk.net

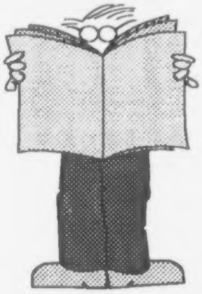
Upcoming Action Research Conferences Outside Wisconsin

*6th International Action Research Symposium sponsored by the Learning Exchange and Project Learn, Kansas City, MO. **April 14 - 16 , 1996**. Contact:
Ginny Miller, The Learning Exchange, 3132 Pennsylvania, Kansas City, MO 64111, (800) 754-4414.

*The Fairfax, VA group will be having a conference in the near future. We are waiting for confirmation of details.

$$ Funding Available $$

*Spencer Foundation Programs for Practitioner Research. This program provides opportunities for action researchers to receive financial support for their inquiries. There are both small grants and a larger grant program.
Contact: The Spencer Foundation ,
900 N. Michigan Ave., Suite 2800, Chicago, IL 60611-1542, (312) 337-7000.



Book Review

By Jane Meyers

Studying Your Own School: An Educator's Guide to Qualitative Practitioner Research

(1994) Corwin Press,
2455 Teller Road, Thousand Oaks, CA 91320-2218,
(805) 499-9734

Who are the authors?

Gary L. Anderson is a former teacher and principal who is currently an Associate Professor in the College of Education at the University of New Mexico. His publications include books and articles on the subjects of qualitative research methodology and studies of the principalship.

Kathryn Herr is a middle school counselor and teacher who has been engaged in practitioner research for more than four years. She is currently a Visiting Professor in the College of Education at the University of New Mexico.

Ann Sigrid Nihlen is an Associate Professor in the Language, Literacy, and Cultural Studies Program at the College of Education at the University of New Mexico. She teaches courses on qualitative and practitioner research, anthropology and education, perspectives on sex and gender, and social class and education.

What is the purpose of the book?

A theme of this book is the gap between the call for teachers to be researchers in their schools and classrooms and the lack of discussion about how one manages to perform two full - time jobs simultaneously: that of being an educational practitioner and that of being an educational researcher (p.172).

What is practitioner research?

In basic terms, practitioner research is "insider" research done by practitioners...using their own site (classroom, institution, school district, community) as the focus of their study. It is a reflective process, but is different from isolated, spontaneous reflection in that it is deliberately and systematically undertaken, and generally requires that some form of evidence be presented to support assertions. (p. 2)

{P}ractitioner research is about deepening our understanding of school life in the service of students. (p. 44)

Practitioner research is more systematic than inquiry - based teaching. It "lends itself to problem solving as well as possible dissemination to a larger audience." (p. 47)

Is practitioner research similar to / different from action research?

Practitioner research assumes a more critical stance than action research. "{P}ractitioner research is best viewed as a vehicle for the empowerment of practitioners, students, and communities toward a goal of institutional and social change from the inside." (p. 36)

Practitioners must make peace with how much of a challenger of the status quo they wish to be... {I}f practitioner research is not done with a critical spirit, it runs the risk of legitimating what may be --- from the perspective of equity considerations --- some unacceptable social arrangements. (p. 26)

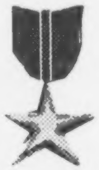
What does the book offer teachers doing research in their own classrooms?

A brief overview of practitioner / action / teacher research is presented in chapter two. This chapter includes an informative discussion about the criteria for validity of practitioner research.

Chapters three and four present first a broad overview of the findings of a variety of practitioner research studies, followed by a closer look at the process as it is undertaken by one of the authors, Kathryn Herr.

Chapter five discusses ways of adapting the techniques of qualitative research -- interview, observation and archives -- to the reality of working in the classroom as both the teacher and researcher.

A bibliography of current literature on the topic of practitioner / action / teacher research is easily accessible at the end of the book. The subject and author index facilitates the use of the book as a reference.



One
Action Researcher's
Featured Work

Students and a Sense of Belonging-- What Does It Mean?

By Ginny Kester

During my involvement in Classroom Action Research, I explored the question, "How does a sense of belonging affect the achievement of African American students?

Before I began the action research process, it was my belief that many of the problems we face in the schools were caused by a breakdown in the relationship between student, teachers, and parents. The results of surveys and interviews with these three groups confirmed this belief. In addition, my research crystallized some of the dynamics that influence our African American students. I found that students feel a split loyalty to their peer group and to their homeroom teacher and that oftentimes these two forces, the peer group and the teacher, are in conflict.

In the process of interviewing, I observed that students acted very differently when they were in a group, as compared to individual meetings. Briefly, as individuals, each student spoke of high academic expectations for themselves and of warm relations with many school personnel. However, as a group, many students put down both academics and teachers. I also noticed that a few students appeared to feel very uncomfortable yet did not speak up. The change was startling and illustrated for the strong and sometimes conflicting pull that many of our African American students experience in school.

The one constant that was true when I spoke to students as individuals and as group members, was that they felt they belonged to their homeroom class and were better understood by their homeroom teacher.

> *..."my action research confirmed for me that it is the bond that we create with students that has the most significant influence on their perceptions of themselves as students. The stronger the bond between teacher and student, the greater the impact a teacher can have on a student's achievement."*

This bond was also reflected in my interviews with both teachers and parents. All three groups felt that the multi-age house system was at the heart of this bond. Parents felt that knowing one teacher well improved their ability and willingness to work with the schools. Parents and teachers also talked more readily of the common values they felt were reinforced in the classroom and at home. In addition, teachers emphasized the need to know their students well, especially when cultural differences existed. Teachers pointed out that the frequent and extended informal exchanges that occurred between teacher and student in the multi-age system, were important in building rapport with students. In general, all felt that a strong bond with someone at school was key for a child's success. From a teacher's perspective, I found the teacher - student - parent connection to be the most significant counterbalance to the negative pull of the peer group. It is essential to put a human face on the institution that is viewed by many African Americans as an unsympathetic and biased institution.

Classroom Action Research also gave me the opportunity to reflect on the direction of our school Minority Achievement Initiative. It became apparent that we need to provide more opportunities for students and teachers, who work within a departmentalized framework, to build relationships. Also, we need to infuse more multicultural content into a wider scope of curriculum areas. In addition, the school must incorporate more people from the African American community into our community, as well as put more staff into the communities of our students. Finally, the definition of achievement should be retooled to better reflect the whole of the African American students' goals and experiences. We need not lessen our expectations, but rather broaden them to incorporate activities which are significant to our African American students. Finally, my action research confirmed for me that it is the bond that we create with students that has the most significant influence on their perceptions of themselves as students. The stronger the bond between teacher and student, the greater the impact a teacher can have on a student's achievement.

Reprinted from the "Continuous Improvement Quarterly," Madison Metropolitan School District. For a copy of the complete study, contact: Cathy Caro-Bruce at the Teachers' Workshop, (608) 266-6456.

(Ginny Kester is a teacher at Sennett Middle School)

Madison Action Research Papers Available

It is hard not to be impressed by the breadth and depth of the work of the action researchers in the Madison Metropolitan School District over the past five years. One of the goals of the Action Research experience is to look for ways to share the knowledge from practitioner inquiry. A collection of the papers written by researchers at the end of each study year have been published and bound so that the knowledge can be shared with others. Presently there are fourteen bound books of studies available (CAR = Classroom Action Research):

CAR, 1990-91
CAR, 1991-92
Principals' Action Research, 1991-92
Elementary School CAR, 1992-93
Middle School CAR, 1992-93
Elementary School CAR, 1993-94 (Blue)
Elementary School CAR, 1993-94 (Purple)
Middle School CAR, 1993-94
Middle to High School Transition and Restructuring the Ninth Grade CAR, 1993-94
Technology CAR, 1993-94
Elementary Classroom CAR, 1994-95
Middle and High School CAR 1994-95
Technology CAR, 1994-95
Integrated Curriculum CAR, 1994-95

If you are interested in receiving collections of works from any of the academic years since 1990, call Cathy Caro-Bruce at (608) 266-6456. In addition to the full collections of studies, abstracts of each of the studies with descriptors to assist in selection of ones pertinent to your interests are being written and compiled into a database to increase accessibility to individual works. More information will be available about how to obtain the database in the next newsletter.

Editor's Corner

By Robin Marion

It is thrilling to be the editor of the first A.R.O.W. Network newsletter! Suggestions for improving future issues such as ideas for articles, new features, graphics, announcements to include, or any other comments are welcome. Send such information to:

Robin Marion, UW-Madison,
225 N. Mills Street, Madison, WI 53706
or 263-4637 or rdmarion@students.wisc.edu

A.R.O.W. Network News
Teachers' Workshop
MMSD
545 W. Dayton St.
Madison, WI 53703

A.R.O.W Network News

A Newsletter for Educators Interested in Action Research

Volume 3, Number 1 Action Research of Wisconsin (A.R.O.W.) Network Fall 1997

Action Research: What Do We Mean?

Jeffrey Maas, Lincoln Elementary
Madison Metropolitan SD

Jeff initiates dialogue on the meaning of Action Research for the Network.

I have witnessed action research philosophy spreading and professional networks expanding. I hear action research discussed at many professional meetings, listed as a topic on the programs of state and national conventions, and its virtues or shortcomings debated in professional journals. As interested as I am in all these events, I wonder--are we all talking about the same thing?

In the ever-growing field of action research there are many similar, yet varied, inquiry processes. AROW Network members feel that these nuances of difference are important to understanding practitioner initiated inquiry. When the AROW Network uses the term action research, we are referring to a process that has several key features.

•Action Research is self-directed
AROW believes that action research must be a self-directed endeavor, founded on ownership of the inquiry process and guided by personal commitment. In this way knowledge is created that has a powerful impact upon a practitioner's insights and approaches.

•Action Research is about building professional relationships
While recognizing the importance of knowledge that impacts individuals and classrooms, AROW recognizes that "the self" exists within the context of "others." A critical component of the process is connecting with "others" within and beyond our professional worlds. This can be done by connecting with the students, parents, and colleagues that help create our world, by accessing the research of other professionals, by sharing the inquiry process with a few colleagues or through regular cohort group meetings. The end result is increased understanding of the complex contextual world within which "the self" revolves.

•Action Research is systematic
Critical reflection is at the heart of action research, but the process is more than reflection. Action research is a systematic inquiry process that supports particular kinds of reflection. It may include a host of documentation and analysis techniques, all designed to bring multiple perspectives to the inquiry process.

•Action Research is ongoing
While action research may start with a particular question or area of inquiry, the process extends beyond one particular project. The process becomes woven into the fabric of professional life. It leads to habits of self-study and inquiry that will permeate and ground a professional career.

Over the years, we've had many conversations about the salient features of action research. Those listed above continually reappear in our conversations. We pass them along to you with the hope that they will spark conversations for you. And, in the spirit of action research, we ask that you pass along the gist of your conversations to us, so that our understanding can grow.

AROW Conference 1998

Hold These Dates!

April 23 and 24

Interest in action research is growing, and so is the AROW Conference! The traditional sharing of classroom action research (AR) is moving to a Thursday evening followed by Friday sessions addressing such topics as:

- **starting school / district AR programs,**
- **facilitating AR groups,**
- **defining the AR process, and**
- **integrating AR into undergraduate and graduate teacher education programs.**

Specific plans for the conference will be released later, but for now, hold the April dates for what promises to be our best conference yet!

About the Network

This newsletter is published three times a year by the AROW Network in collaboration with the Madison Metropolitan School District. Subscriptions are part of AROW Membership.

To become a member, send name, address, phone, e-mail, role / position, district / organization information with $10.00 (annual fee) to:

Lisa Kass, 5729 Thrush Lane
Madison, WI 53711

Discounts available to members for the annual AROW conference.

AROW Planning Committee meets at Edgewood College Library, Madison. Call Cathy Caro-Bruce for meeting schedule, (608) 266-6456.

Planning Committee Members
Jim Beane, National Louis U
Barbara Brodhagen, Sherman MS
Cathy Caro-Bruce, Madison Metro SD
Lisa Kass, Wingra School
Mary Klehr, Elvehjem Elementary
James Kusch, UW Whitewater
Jeff Maas, Lincoln Elementary
Robin Marion, UW Madison, Editor
Mary Mercier, Edgewood College
Courtney Moffatt, Edgewood College
Sharon Strom, WI DPI
Nan Youngerman, Cherokee MS
Doug White, WI DPI
Ken Zeichner, UW Madison

AROW Network Mission
To improve the quality of education in WI by promoting AR through:
- Collaborative Networking
- Recognizing the Ongoing Work of Practitioners
- Sharing the Knowledge Produced By Action Researchers.

Newsletter Themes & Deadlines
Send articles to the editor at:
rdmarion@students.wisc.edu or
Call Robin Marion (608) 263-4637.
- **Defining Action Research in WI**
  Present Issue
- **Expanding the Network**
  February 1
- **Taking the Time To Reflect**
  April 6
- **Telling Our Stories**
  August 15•

ACTION RESEARCH

Madison Teachers Share Their Expertise At AERA-Chicago

Barbara Brodhagen and Laura Mueller
Teacher Facilitators, Madison SD

Reflections on sharing ideas with a diverse group of education colleagues.

Last April we had an opportunity to share our experiences with and understanding of action research (AR) at the annual conference of the American Educational Research Association in Chicago. We were part of a panel to discuss, "The Nature and Impact of Practitioner Research in One Urban School District." In this presentation each of us described some aspect of the Madison Metropolitan School District's Classroom AR Program, such as the development of the program in Madison, a "typical" group and project, how AR is supported, and early findings from the Spencer-MacArthur funded study of AR in Madison.

The discussant, Bridget Somekh, Scottish Council for Research in Education, made comments about her observations on the Madison program, and the audience then asked questions or shared pertinent information.

"Educators from all over the world...wanted to hear our stories."

Before the session we wondered who, if anyone, would attend. We knew this was going to be different than sitting talking with other Madison facilitators. About twenty people attended and were very interested in what Madison teachers were doing. These educators from all over the world, many professors who work with pre-service and veteran teachers, wanted to hear our stories.

Attendees were especially interested in how our district has supported the monthly half day release time, about how people become facilitators and learn to facilitate, and what findings are emerging from the study.

We discovered there aren't many districts that have made the kind of commitment to action research that Madison has made. We'll do this again, but only in a warmer city!•

How to Support and Sustain Action Research

Judy Winn, UW-Milwaukee and Francine Tompkins, UW-Green Bay

Judy and Francine, teacher educators, seek participants for an action research study.

We are seeking to identify the value of action research (AR) for participants, to identify factors that both facilitate and inhibit sustained involvement in AR, and to explore how to incorporate AR into teacher education.

We are asking teachers who have participated in AR to help us by responding to a questionnaire. We hope to hear from many teachers who are involved in action research. We will share our results with each CESA.

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Editor's Note: A request for participation was originally made in September, but there may still be interest in hearing from readers, or you may be interested in the findings.•

NEWS AROUND WISCONSIN

Teacher Action Research in Central Wisconsin

Jay Price and Henry St. Maurice
UW-Stevens Point

Jay and Henry describe their action research involvement.

As the sole degree-granting institution of teacher ed headquartered in the central WI area, UWSP has hosted teacher ed programs since its founding in 1894. In the past decade, it has been home base for teacher action research (AR) projects which we'll describe here.

Since 1994 Jay Price, UWSP, and John Davenport, WI Rapids SD, have jointly led an AR seminar for faculty in the Rapids district. Individual participants investigate the impact of practices in their classrooms and teams of faculty have investigated the impact of school policy changes. Veteran participants in the seminar have begun projects based on the outcomes of earlier work. With the aid of Goals 2000 Grant moneys, seminar papers are posted and available on the District web site.

Since 1990, Henry St. Maurice has facilitated three cycles of teacher research at UWSP. The first emerged from a graduate course on supervision, and led to a publication with Barb Albrecht, Nell Anderson, and Connie Milz. Entitled "True Stories: The Politics of Truth in Teacher Development," it appeared in Critical Discourses on Teacher Development, edited by John Smyth (London: Cassell, 1995).

The second group arose from a graduate curriculum course, and also led to a publication, co-authored with Jane Lundin, Wendi Martell, and Donna Nelson. Entitled "What's New: Practitioners' Inquiries about Curriculum Innovation," it appeared in Educational AR (June 1996).

A third group, consisting of some members of the previous two, has presented at the Madison AROW Conference and the International Conference on TR in Evanston. This group is investigating teacher writing. Summaries of the work is located on (http:///www.uwsp.edu/acad/edu/hstmauri) on the "projects" page.

Central Wisconsin schools and UWSP are seeking further projects and contacts. Call or write, and let's plan to meet at the Madison conference this spring.

Henry St. Maurice, 112 College of Professional Studies, UW - Stevens Point, Stevens Point WI 54481 USA 715 346 2440 vox•

Wisconsin educators are actively engaged in projects involving some form of action research. Each site defines their activities in slightly different ways.

Improving School and University Practices

Mary Lundeberg, UW-River Falls

Teachers and faculty in K-12 schools in Hudson and River Falls and UW-River Falls are involved in a collaborative AR project.

We are using AR to assess goals for a grant we received entitled: IT'S ABOUT TIME: WI DPI Goals 2,000 Preservice / Professional Development Grant. The goals of the partnership are to change:

•**Classroom practices** by applying constructivist principles using project based learning in a technology-mediated environment;

•**District / university practices** to promote intra- and inter-school interdisciplinary instructional partnerships, to share resources, and to explore a new professional development model;

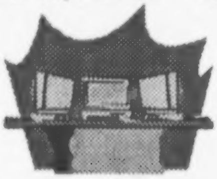
•**School / community relationships** to develop a shared vision of the roles of and relationships among students, parents and community members.

Project participants created a vision statement, developed survey instruments to assess technology / constructivist curriculum needs, created workshops for participants, and developed team projects (across schools and disciplines). Teachers and professors presented the classroom projects they implemented along with the research they conducted regarding student learning.

In the third year university interns were assigned to fifteen teachers, releasing them to work on the constructivist technology project curriculum. During an initial discussion the teachers, curriculum directors and professors reviewed the goals and developed an assessment plan. This group then designed log forms and survey instruments to distribute to staff in their buildings. Through a Bulletin Board discussion teachers shared some of their log entries and determined a systematic procedure for coding notes.

The web site for this project (still under construction) is: http://www.uwrf.edu/college-of-education/goals2000/welcome.html

Contact Mary Lundeberg, Professor, Teacher Education, UW-River Falls, 410 S. 3rd Street, River Falls, WI 54022-5001 for further info.•



Voices from the Classroom: Issues and Ideas from Inside Schools

Issue Selected:

INTEGRATING TECHNOLOGY INTO THE CURRICULUM

An issue that a number of action researchers have identified for further study was selected. Abstracts of these classroom experts' findings are here for perusal. To obtain complete studies contact Cathy Caro-Bruce, MMSD Staff and Organization Development, (608) 266-6456 or ccaro-bruce@madison.k12.wi.us

Cocalis, Vicki, Longfellow School
The Magic of Technology (1994)
Technology as a catalyst for change is the focus of this study. The setting is an alternative program for pregnant teens. Since new students join and leave regularly, this program has some unique challenges. Several strands emerge from analysis of data that elucidate the potential power of technology in the classroom: the changing roles of the teacher and student, increasing self-esteem, providing a safer environment for taking risks, and reducing disparities among students. Quotes from students throughout the study invite the reader to step into this classroom and share in the "magic."

Didcoct, Judi, Jefferson MS
Going On-Line (1994)
Students as instigators of staff development for teachers interested in using modems is explored. The historical development of a computer network at Jefferson, and origin and impact of a computer club are described. Recommendations for avoiding or minimizing pitfalls offer practical advice to individuals interested in incorporating modem use into their curriculum.

Hobright, Andrea, Lake View Elem
Student Assistants Project (1995)
In spite of a well equipped computer lab, teachers were frustrated by the time required to become proficient at integrating computers into their curriculum. This study focuses on use of student mentors to help teachers develop computer projects. From a pool of twenty students identified as computer proficient, mentors were trained on appropriate software and matched with interested fourth and fifth grade teachers. There are enough indications of success on a small scale that there are plans to expand the program.

Rodriguez, Noemi, Hawthorne Elem
When One Is Not Enough (1996)
An initial question regarding access to computers for children of color evolved into: How can I integrate independent use of computers into my curriculum? A number of obstacles immediately frustrated this researcher, primarily access to computers and appropriate software. The study addresses ways obstacles were overcome, the logistics of setting up computer partner time, and the fortuitous use of a community service project as a focus for computer work time. The appendix contains the community service lesson plan.

Spitz, Barbara, Sherman MS
Introducing Technology into the Curriculum: How Does It Affect Students and Teachers? (1992)
Using observations and questionnaires this teacher tells the story of how implementation of a new multimedia technology (hypermedia) impacted sixth grade students and their teachers at a new experimental school site. Some detail of two projects are included using story glimpses, anecdotes from students, teachers and parents and survey data from questionnaires. Themes that emerged from data analysis included changed attitudes, empowerment, self-esteem, and cooperation. Both challenges and successes are shared in the study.

Steele, Maggie, Crestwood / Van Hise ES **Using Music to Increase Computer Interest for Girls and Minorities** (1996) This music teacher investigated the influence music software had on the motivation of girls and minorities with computers. Lack of access to a computer until two months before the end of the school year was a major hurdle. Eventually she paired six students (four Caucasian girls and two African American boys) to work on the music composition software. The resulting finished products along with a song the action researcher composed about her complicated year, tell the story of her findings. Changes in her schedule to include a preparation period resulted from her research efforts.

Swanson, C. Bruce, La Follette High
How Are Attitudes and Motivation Affected by Technology in the Chemistry Curriculum? (1994)
After introducing computer laboratory calculations, laser disc demonstrations, and computer graphing, a Chemistry Attitude Inventory and an Incomplete Sentences Inventory were administered to students. Copies of these inventories are provided in the appendix to this paper. This teacher reveals the transformation he went through as a result of doing action research, and the lasting impact it has had on why and how he teaches what he does.

Vander Meer, Harriet, Sennett MS
High Steps to Comprehension Produces Giant Leaps for Reading Comprehension (1995)
After locating a particularly promising computer software program, High Steps To Comprehension, with capacity to track individual students, an audio feature for pronouncing difficult words, and a "help" feature, this study got underway. Students were involved in the research project from the outset and were impressed that their reactions would influence a final decision about investing in the program. The importance of a partnership between the teacher, student, and computer became evident. Some significant gains in reading scores resulted for students. Changes in behavior and motivation were noted as well. •

Featured Action Researcher:

David Spitzer

Lincoln Elementary, Madison, WI

Due to deadlines and travel schedules, Doug White, Program Director, WI DPI, conducted this interview about David's action research project via e-mail.

What are your special interests as a teacher?

One of my primary concerns is that students understand our fourth grade classroom is not just four walls and a door...that learning takes place in all arenas if one is receptive and inquisitive. I stress observation skills, and conduct many extended field study trips during the year. We prepare itineraries, set up pen pal stops, camp, and live together as a unit for a week. The kids record in journals, interview town citizens, take photos for journal albums and receive video tapes of the adventures that validate their participation and successes. I attempt to infuse the routine of reflection with my kids so they know why they are doing something, why it might be important to them, and to assess themselves when done.

How did you become interested in action research?

I was influenced by many colleagues in my building who had, over the past few years, taken part in Action Research. The positive responses from these teachers led me to seriously consider the program.

I had many questions about my own practice, especially the role of experiential learning within my active field study program. I had gut feelings that kept me going but no solid / formal analysis of my teaching. Action research seemed to be the answer to a more disciplined, approach to reflection.

What was the question you were investigating last year?

My research question revolved around validating my experientially based program. What were the actual benefits of kids working at the School Forest, going fossil hunting, measuring Native American mounds, visiting a Wisconsin author's boyhood home or traveling and living as a unit for a week? I believed that these authentic experiences did provide first hand images and clear connections for kids, but I had not reviewed literature nor received formal feedback from those familiar with my program. I needed to ask about the educational soundness of this format. The results could have a very significant affect on the direction of my practice.

How did you select data collection methods?

My primary responsibility is to my students and their parents, so I decided to survey past students to determine their perceptions of fourth grade. Questions for both kids and parents asked about the extent to which field studies are integral to a classroom curriculum, and the extent of preparation these provided for the upper grades.

I also did an extensive literature search on experiential learning to determine the current definitions and practice. This helped me narrow down and "claim" a part of these definitions for myself. It was interesting for me to see myself fitting into a part of the discipline in a formal way.

How did your conclusions affect your teaching practice?

Responses to my questions were overwhelmingly positive and affirming. Some comments expressed were constructively critical. These findings did help me realize that the program I had developed was, indeed, a valid one in the eyes of my "clients." Interestingly, modifications in my practice came as I was constructing questions to my surveys and reading the literature, rather than after the results were in. The results confirmed changes I made, but most reflection on practice came as I attempted to formulate the way data was to be obtained. These were the times when I was in a disciplined, reflective mode, totally focused on my problem at hand and able to apply thoughts directly to what was to happen in the next weeks ahead at school.

Were colleagues helpful to you in the action research process?

My group of eight teachers discussed / pondered / agonized over the reflective process together. Individual questions were very different, but the process of getting down questions and following through to conclusions was something we all shared in common.

Did this cycle of action research lead to new questions?

I have not developed new questions, per se, but have gotten into a routine of reflection, which, of course, has immediate dividends for my kids. I am able to more efficiently determine what is educationally sound for the kids as new projects within the curriculum surface.

What else would you like to say about action research?

Action research provides the necessary discipline to do what we should be doing but don't because of being swept along by daily / weekly commitments to execute curriculum. The contemplating parts often come in time segments that are too small, too hurried, and too infrequent.•

RESEARCH STUDIES OF PRACTITIONER RESEARCH

Teacher Research: A Strategy for Promoting Greater Equity in Student Achievement

Ken Zeichner, UW-Madison

This new project grew out of the two year Madison study updated below.

This project explores the relationship between teacher learning and student learning. It examines school-based TR as a strategy for promoting greater equity in student achievement with a focus in literacy education.

It will begin with a comprehensive review of what we know about the effects of TR on teachers' beliefs, dispositions, practices, and student achievement.

Next, it will involve study of several established TR programs to better understand both the conditions that are related to the success of these programs and those that have been obstacles. Of particular interest is how these programs have supported the facilitation and the research of teachers and how they have developed structures for enabling others to access knowledge produced through TR.

New study explores ways to share teacher-produced knowledge.

Finally, it will explore ways to develop connections among different centers of TR activity in the US with regard to teacher produced knowledge about issues of equity in achievement.

Much research has been conducted by teachers that has discovered and documented successful practices in promoting greater equity in achievement. Little work has been done however, in creating structures to enable others to benefit from this knowledge. I plan to work with NPEAT partners such as the American Federation of Teachers, and the National Education Association to explore ways to increase the access by school systems to knowledge produced through TR. I have developed some prototypes related to this goal in a recently completed study funded by the Spencer and MacArthur foundations.

This project is funded for four years by the US Department of Education, beginning 1/1/98.•

The Nature of Practitioner Research

Robin Marion, UW-Madison

These are findings of a study focused on the nature and impact of a Madison Classroom AR program.

The power of the Madison classroom action research (CAR) program lies in the way teachers are engaged in the process of systematic reflection. Analysis of field notes and oral and written participant descriptions has led to identification of some key elements of practitioner research. These key elements are:

A reason to gather: genuine engagement in meaningful work,
Ritual: established customs and language that define a culture of learning,
Choice and control: teachers make their own professional development decisions,
Nurturing feedback: support by experienced peers,
High expectations: belief in the power of teachers as individual and collective change agents,
Open ended tasks: a search for understanding, not simplistic answers,
Holistic: addresses personal, professional, political aspects of educating,
Fostering resiliency: a focus on teachers' strengths rather than deficits.

The impact of CAR on teachers is many faceted, involving changes in:
Thinking: increased awareness of the link between teacher attitudes and behaviors, and those of students,
Practice: increased confidence to try innovative strategies, and a tendency to establish more democratic policies and procedures with students.
Political Saavy: increased confidence in the face of obstacles, and the ability to back up assertions with evidence.

The findings are tempered by a few sobering realities.

Findings demonstrate impacts on students as well, including increased:
Engagement: motivation, attitude, rapport with teachers and one another,
Responsibility: for their own learning, attendance, and behavior,
Academic success: assessed in a variety of ways.

These findings are tempered somewhat by a few sobering realities, also uncovered by the study.

Each year funding to release teachers to examine their practice is subject to elimination. As part of this year's budget negotiations, the entire staff development program in Madison is in danger of being eliminated.

Action research involves tremendous risk-taking and struggle throughout the year long process. The struggle is a crucial part of the experience, but places additional demands on teachers.

The ability to continue as part of an ongoing action research community is somewhat limited by resources and leadership opportunities available, in spite of efforts to open a wide range of activities to former action researchers.

In spite of a number of attempts to make teacher knowledge available widely, the findings of teachers are not shared on a wide scale. This is due to a number of obstacles, not the least of which is skepticism about the validity of those findings by the academic community.

In spite of the challenges, the strength of the findings speaks to the necessity to continue supporting, encouraging, and validating the efforts of teachers to better understand and improve their practice and the learning experiences of their students.•

Networks: On-Line

Aelaction is a free, facilitated forum for sharing ideas relating to action research. Aelaction links the wisdom that teachers bring to "net" discussions with current knowledge from research. To subscribe, send an e-mail message to: majordomo@ael.org. Leave the subject line blank. In the body, type: subscribe aelaction your e-mail address. Do not include a signature file.

Xtar is a telecommunications discussion group to enable teacher researchers to share their ideas with colleagues in schools and universities all over the world. Anyone involved in classroom inquiry is welcome to participate. To subscribe send a message to listserv@lester.appstate.edu Skip the subject. Leave a message stating "subscribe XTAR" and give name.

ARLIST is an electronic mailing list where people discuss issues about theory and practice of action research. It is accessible to anyone connected to the internet. To sign on, send message "subscribe arlist" to arlist-request@psy.uq.oz.au

Journals

Teaching and Change, NEA Professional Library and Corwin Press, Karen Zuaber, Editor, NEA 1201 16th St. NW, Washington, DC 20036, (202) 822-7785.

Teacher Research: The Journal of Classroom Inquiry, Editors: Brenda Power, U of Maine, Orno and Ruth Hubbard, Lewis and Clark College, Portland OR. Teacher Research, Johnson Press, 49 Sheridan Ave., Albany, NY 12210

Educational Action Research, Triangle Journals LTD, PO Box 65, Wallingford, Oxfordshire OX10 OYG, Oxfordshire, UK. E-mail: journals@triangle.win-uk.net

Democratic Education: Publication of the Institute for Democracy in Ed. College of Ed, OH University, 313 McCracken Hall, Athens, OH 45701-2979, (614) 593-4531.

Rethinking Schools: an independent journal written by parents, teachers and ed activisits committed to achieving equity and social justice in public school. 1001 E. Keefe Ave., Milwaukee, WI 53212-1710, (414) 964-9646.

Networks: On-Line Journal for TR
A place for sharing reports of teacher action research, K to postgraduate.
Submit articles to:
The Managing Editor, NETWORKS
Dept of Curr, Tching and Lrning
Ontario Institute for Studies in Ed,
University of Toronto
252 Bloor St. West, Toronto, ON
CANADA M5S 1V6
networks-j@oise.utoronto.ca

Internet Archives: Teacher Studies or Abstracts

Teacher as Researcher Special Interest Group, AERA. This web site showcases research on practice by K-12 teachers and the work of teachers involved in adult literacy settings, community colleges, and universities. Web site address is: http://www.ilstu.edu/depts/labsch/tar

Voices of Madison: Issues and Ideas from Inside Schools. Abstracts of Madison classroom action research studies completed from 1989-1997 are available on-line from the district web page at: www.madison.k12.wi.us

Research in the Teaching of English: Models of teacher-research papers are linked at the web site for this journal: http://members.aol.com/RTEngl/rtehome.htm
For info: Peter Smagorinsky, Co-Editor, U of OK, 820 Van Vleet Oval, Norman, OK 73019, (405) 325-3533.

More Sources of Studies

Institute for Ed Transformation publishes individual and collaborative teacher researcher studies produced in the Master in Ed program. Sharon Gerow, Director, Teacher Researcher Center c/o IET George Mason U-Prince William, 7946 Donegan Dr., Manassas, VA 20109, (703) 993-8320, sgerow@gmu.edu

Alaska TR Network publishes collections of writings by Alaska teacher researchers. Contact: Shirley Kaltenbach, PO Box 83094, Fairbanks, AK 99708

CRESS Center publishes abstracts of teacher research studies. Contact: Jill Wilson, Asst. Director, The CRESS Center, Division of Education, One Shields Ave., U of CA, Davis, CA 95616-8729

Newsletters

AROW Network News, a Wisconsin publication. Subscription details on page two of this issue.

Action Researcher, a newsletter of the Collaborative Action Research Network (CARN). Hyde Pub., 57 Exeter Rd., Bournemouth BH2 5AF UK. Twenty pounds for three issues per year.

Massachusetts Field Center for Teaching and Learning. This group publishes a newsletter that features a teacher research column and hosts annual conferences on teacher writing and teacher research. U of MA-Boston, 100 Morissey Blvd, Boston, MA 02125, (617) 287-7660 or e-mail: ma-field-ctr@umbsky.cc.umb.edu

Pathways, a newsletter that encourages teachers and administrators to write from their own experience, to ask questions about pedagogy and curriculum, to describe their own classrooms, and to explore how historical continuities illuminate current practice. U of ND, PO Box 7189, Grand Forks, ND 58202-7189

(Resources Continued to Next Page)

°°°RESOURCES, CONT.

Call for Papers

The **Harvard Ed Review** is welcoming writing of adults and students who have first-hand experience with teaching and learning. They are interested in articles focused on what you've learned through your practice and/or research. See web site for guidelines: http://hugse1.harvard.edu/ hepg/her. html. or call (617) 495-3432.

Conferences

Voices from the Classroom IX, March 6-8, 1998, Monterey CA. This annual event brings together teachers at all levels who are investigating their practice. Janet Hecsh, CRESS , Davis, CA, (916) 373-3581. Deadline to submit proposals to present has been extended.

5th International Conference on Teacher Research, April 17-18, 1998, San Diego, CA. This event will bring together teachers at all levels who are investigating their practice. It is a forum for teacher researchers to discuss all aspects of their work and works-in-progress and discuss the political and practical implications of conducting research. For info: Marcia Venegas-Garcia, UCSD / San Diego Area Writing Project, 9500 Gilman Dr., Dept. 0070, La Jolla, CA 92093-0070, e-mail: mvenegasgarcia@ucsd.edu

Teacher As Researcher Sig Group presents a variety of interactive and engaging sessions at the annual AERA meetings, held this year from April 13-17, 1998, in San Diego, CA. For program information contact Janet Hecsh, 21870 Old River Rd. West Sacramento, CA 95691 or call (916) 373-3581.

Funding Available

Spencer Foundation has a program for practitioner researchers to receive financial support for their inquiries. Small and larger grants are available. The Spencer Foundation, 900 N. Michigan Ave., Suite 2800, Chicago, IL 60611-1542, (312) 337-7000.

National Council of Teachers of English Teacher Researcher grants. There is a February 15 deadline for these grants, available to members of the council. For details phone (800) 369-6283, ext. 251.

Network

The **Greater St. Louis Action Research Collaborative (ARC)** is a learning community of teachers, teacher educators, etc. whose mission is to advocate, support and implement AR and other forms of reflective practice for the purpose of promoting student inquiry, generating and sharing new knowledge, crafting new norms of practice, facilitating professional development, fostering teacher leadership, guiding school reform, developing schools as centers of inquiry, and as learning communities. ARC began meeting in fall of 1992. The St. Louis community has five teacher professional development programs which integrate AR into their teaching / learning process. This network provides a way for them to connect. For further info contact Molly Lynn Watt, Director, at MollyW@EDC.org Ask about her online essay about the collaborative.•

AROW Network News
Teachers' Workshop, MMSD
545 W. Dayton Street
Madison, WI 53703

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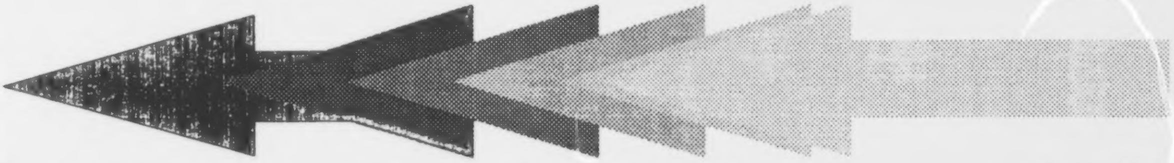
A.R.O.W Network News

A Newsletter for Educators Interested in Action Research



Volume 3, Number 2 Action Research of Wisconsin (A.R.O.W.) Network Spring 1998

An Exciting Year For the AROW Network

As we reflect on the school year which is rapidly coming to a close, we marvel at the developments that have taken place with the action research network. We are blessed with a dedicated group of individuals called the planning committee which pulls together in many ways to fulfill the mission of the AROW Network.

We have been particularly fortunate in having very talented leadership and facilitation of the committee by first Cathy Caro-Bruce, Staff Development Specialist, Madison Metropolitan School District, followed by Doug White, Consultant, WI Department of Public Instruction. This year we have been both entertained and impressed with the facilitation skills of Jeff Maas, a classroom teacher at Lincoln Elementary School, Madison. Look on page two at "About the Network" for a full listing of all the hardworking individuals who make the network run smoothly.

Cathy Caro-Bruce, Coordinator of the classroom action research program, has been asked to share her expertise about setting up action research programs and facilitating action research groups around the country. She has been to Brown University twice this year presenting to the Institute for Cultural and Linguistic Diversity at the Lab at Brown. She traveled both to University of Missouri, Kansas City to the Professional Development Center, and to the National Staff Development Conference in Nashville, TN for similar interactive presentations about the way Madison has developed and sustained classroom action research. Word continues to come back from these sites about the unique program Madison has developed for teachers to examine their practice.

Cathy is not alone in her travels. Julie D'Onofrio and Laura Mueller, Madison teachers, group facilitators and past participants of the Madison action research program, traveled to Monterey, CA to share their action research studies and their expertise as facilitators with teachers from the CRESS Center at UC Davis, and from as far away as Texas. They attended the Voices from the Classroom IX Conference, an annual event to share and celebrate the teacher research process and knowledge produced by teachers. It is hoped that dialogue between the Wisconsin and California teacher research communities will continue. Read more about their involvement with the conference on page two.

> ***The network has been blessed with a dedicated group called the planning committee which pulls together in many ways to fulfill the mission of the AROW Network.***

Ken Zeichner, a tireless supporter of the Madison classroom action research program and of practitioner research more generally, has traveled to Namibia, Africa more than once this year to teach courses and advise teacher educators and student teachers who are practicing a form of action research they call "critical practitioner inquiry." For more details about his fascinating work there and about educational reform in Namibia look to his article on page 7 of this issue. Ken also just completed a book chapter titled "Practitioner Research" for the next Handbook of Research on Teaching, Fourth Edition, Virginia Richardson, Editor. We look forward to some stimulating reading when the book is published.

Robin Marion is putting the finishing touches on her doctoral dissertation as this issue goes to press. She studied the Madison classroom action research program for two years from the inside out, immersing herself in the process as a cofacilitator for two action research groups, as a member of the planning committee, as author of the Voices from Madison abstracts for studies completed by participants from 1991 to the present, and editor of the AROW newsletter. The study reveals some interesting aspects of the Madison program that make the experience for teachers so powerful and connected to their classrooms and students.

Mary Klehr is a new member of the planning committee this year, and is our featured action researcher in this issue. On page 5 read about her reflections on what action research has meant, and some of the opportunities for continued involvement.

The facilitators are a critical part of the success of action research in Madison. This dedicated group of individuals deserves recognition for their efforts. On page 4 is just such a tribute, with thoughts about facilitation "in their own words."

We constantly marvel at the work of teachers. The issue we chose to highlight from completed action research studies for this publication is: English As A Second Language. Browse through the abstracts of several Madison studies on Page 3, and be sure to order complete studies for those that intrigue you.

We hope many of you made it to the AROW conference on April 23 & 24. The next issue of this newsletter will be centered around "Stories from the Conference." Be certain to send your stories in to enrich the retelling of experiences we had as participants, as presenters, and as organizers of what has proven to be an excellent gathering of the minds about the action research process and the fascinating findings that result. See page 8 for details on where to send them.

Hope you enjoy this issue as much as we enjoyed producing it! Until next time!•

About the Network

This newsletter is published three times a year by the AROW Network in collaboration with the Madison Metropolitan School District. Subscriptions are part of AROW Membership.

To Become a Member

Send name, address, phone, e-mail, role / position, and district / organization information with $10.00 (annual fee) to:

Lisa Kass, 5729 Thrush Lane
Madison, WI 53711

Discounts are available to members for the annual AROW conference.

Planning Committee Members

Jim Beane, National Louis U
Barbara Brodhagen, Sherman MS
Cathy Caro-Bruce, Madison Metro SD
Lisa Kass, Wingra School
Mary Klehr, Elvehjem Elementary
James Kusch, UW Whitewater
Jeff Maas, Lincoln Elementary
Robin Marion, UW Madison, Editor
Mary Mercier, Edgewood College
Courtney Moffatt, Edgewood College
Sharon Strom, WI DPI
Nan Youngerman, Cherokee MS
Doug White, WI DPI
Ken Zeichner, UW Madison

The AROW Planning Committee meets at Edgewood College Library, Madison. To join us call Cathy Caro-Bruce for the monthly meeting schedule, (608) 266-6456.

AROW Network Mission

To improve the quality of education in WI by promoting action research through:

- Collaborative Networking
- Recognizing the Work of Practitioners
- Sharing Knowledge Produced By Action Researchers.

Newsletter Themes & Deadlines

•**Telling Our Stories**
May 1

•**Taking The Time To Reflect**
September 15

Send articles to the editor at:
rdmarion@students.wisc.edu or
Call Robin Marion (608) 263-4254. •

The California – Wisconsin Connection Lives On: Wisconsin Teachers Travel To California

This is the second year that WI teachers have attended the "Voices from the Classroom" conference sponsored by the CRESS Center, Division of Education, University of CA-Davis.

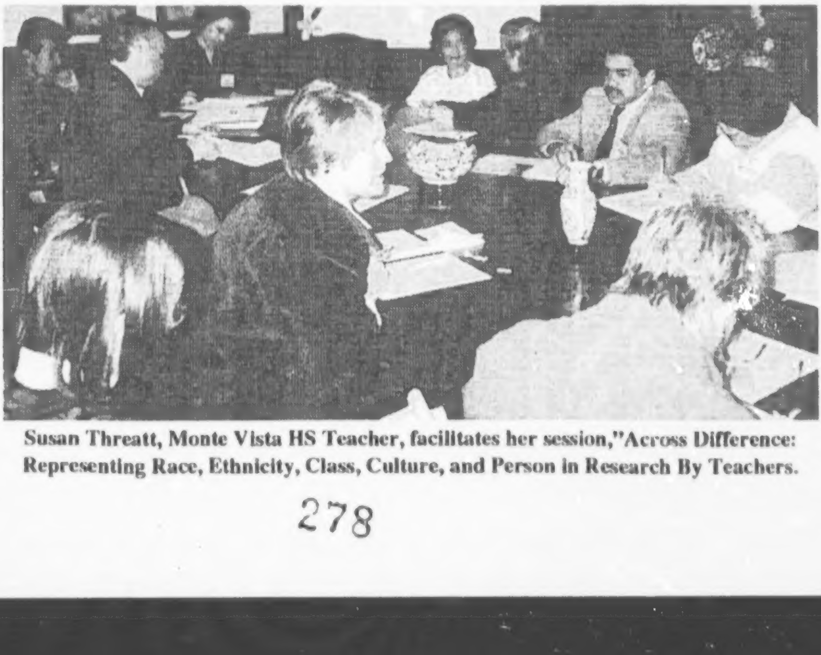
Thanks to the generous support of the CRESS Center, this year Julie D'Onofrio and Laura Mueller, both Madison teachers and facilitators of action research, made the trip to Montery, CA for the "Voices" conference. In addition to presenting a session entitled "Classroom Action Research: An Avenue for Growth and Leadership," Julie and Laura made many connections with other teachers examining their practice.

Laura Mueller and Julie D'Onofrio take a moment to reflect on the conference and enjoy the ocean view.

Janet Hecsh, 1998 Conference Coordinator, describes the gathering, "This annual conference offers an opportunity for K-16 teachers to come together and share ways in which they are investigating teaching and learning issues in their classrooms and what they are learning from these investigations. The conference provides a forum for teacher researchers to present their work and works-in-progress, and to discuss the process and politics of conducting research."

There are many similarities in the work that WI and CA teachers are doing as classroom researchers. There may be value in direct connections between teachers with similar interests in the two locations. There are many ways to imagine connecting, including e-mail dialogue journals, exchanging studies for peer review and critique, monthly "research gatherings" on-line, and / or continued travel between corresponding annual conferences.

If connecting with teachers in CA or WI to exchange ideas about teaching and learning sounds like something interesting to you, or if you have any ideas about fostering those connections, please contact Robin Marion (see About the Network this page for contact information) or Cathy Caro-Bruce at (608) 266-6456. They will connect you with either Laura or Julie who may be aware of teachers with interests similar to yours, or attempt to locate a teacher with similar interests to help you begin communication.•



Susan Threatt, Monte Vista HS Teacher, facilitates her session,"Across Difference: Representing Race, Ethnicity, Class, Culture, and Person in Research By Teachers.

Voices from the Classroom: Issues and Ideas from Inside Schools

Issue Selected: ENGLISH AS A SECOND LANGUAGE

By selecting one issue and publishing abstracts of Madison action research studies about that issue, we hope to increase access to teacher expertise. Please request the entire study if the topic pertains to your practice or the practice of teachers with whom you work. Contact Cathy Caro-Bruce, MMSD Staff and Organization Development, (608) 266-6456 or ccaro-bruce@madison.k12.wi.us for complete studies.

Abstracts for all studies completed by Madison teachers as part of the classroom action research program are available on the Madison Metropolitan School District website at www.madison.k12.wi.us

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Brania, Carin, East High School
Boulders on the Path to Success

This school psychologist had few tools to diagnose needs for some Southeast Asian immigrant students. Her question emerged to identify both the top priority needs of ESL students, and which community resources existed to meet those needs. Students identified individual tutoring, support groups and mentors as desirable options for additonal help. Teachers identified an impressive list of strategies they use to accommodate the needs of ESL students. They additionally reported increased awareness of other cultures, increased sensitivity to individual needs, and lots of extra time spent helping individual students. Specific recommendations are made to begin more effectively addressing identified needs.

Burnson, Lianne, Thoreau Elem
Enhancing Hmong Parental Participation In School

In an attempt to determine the extent and nature of involvement of Hmong parents in their childrens' education, this ESL teacher outlined an action plan. The plan included a literature review to help understand Hmong culture, a needs assessment survey, development of a program to meet those needs, and evaluation of the program through action research. Part of the plan involved a program called Families and Schools Together (FAST) which is described in the paper. Graduation night was a highlight of the program, with traditional costumes, music and a folktale in Hmong. Copies of the needs assessment survey used, in both English and Hmong, are part of the report. Additional suggestions for involving parents of all students are outlined.

Hoadley, Elizabeth, Black Hawk Middle
Defining the World: Content-Based Learning in an ESL Classroom

Based on frustration with the tension between 1) including ESL students in mainstream classes while trying to support them with one-on-one tutoring, and 2) teaching entirely separate ESL Social Studies, Science, Language Arts, and Math, this teacher tried a third approach and studied the effects. This content-based language instruction program, called Project Achieve, merges ESL instruction with one other academic discipline at the same level required by parallel mainstream classes. For this study Social Studies was merged with second language development. The paper describes the strategies used in the development of curriculum for the combined ESL / Social Studies course, and the necessity of utilizing a backup study hall to focus on straight ESL exercises. Teaching "real" subjects requiring students to do "real" studying became significant as a motivator for ESL students. Charts in the appendix contain evidence of increases in language achievement, "aha" moments, and the difficulties that need to be addressed before teaching the course again. In spite of the need to continue tinkering with the curriculum, this researcher feels confident that the Project Achieve approach is the best one she has used to date. (Another Hoadley study is titled, "How to Develop Writing Ability in my Sixth Grade ESL Class.")

Peyasantiwong, Patcharin, Franklin Elem.
When To Exit ESL Students?

This study arose from concerns about the evaluation process used to determine whether a student is in need of further ESL instruction, and the possibility that ESL services might be ended prematurely. This K-2 ESL teacher examined the Reading Recovery Test, the Qualitative Reading Inventory, and the Ekwall Reading Inventory for correlations among them and to choose the most appropriate tool for evaluating her students. Two sets of two students were evaluated by all three measures, two identified as ESL, and two native speakers. Specific test characteristics are collated and compared. Resulting recommendations are made for adjusting the exit criteria to prevent removal of ESL support services prematurely, including use of multiple evaluation instruments, and increased emphasis on comprehension and oral skills. Comparative testing data, and student samples are included, along with sample test materials.

Pham-Remmele, Thuy, Shorewood Elem.
Game-Playing in ESL Class

This paper is written as a series of letters that might have been sent to a colleague. The role of game playing in promoting fluency and self-esteem is the focus of this study. A wide variety of international games are played and discussed with students. Midway through the study, the teacher expressed doubts that perhaps game playing was "too frivolous" and there should be more emphasis on worksheets. The reaction of her action research colleagues to those doubts encouraged her to continue. She had some disappointments over schedule changes that interfered with a part of the research plan. Action research, for this teacher, was almost an "out of body" experience as she got into the habit of conducting her class and at the same time observing herself doing so. Instructions for games are included and samples of student work.

Webb, Veronica Sanchez-Santos, Lowell Elem.
The Inclusive Classroom: Building the Professional Team

The focus of this study is the writing process. In an effort to meet the needs of all students, inclusion was implemented. The professional team included a third grade teacher, a second grade teacher, an ESL teacher, a Title 1 teacher, and the Learning Disability teacher. The study emphasizes the method and outcome of teaching the writing process while meeting the individual needs of each student in the combined class. •

Honoring The Facilitators

Recognizing The Crucial Role They Play In The Classroom Action Research Process

After reflection on the overwhelmingly positive feedback from participants of the Madison action research program, it has become apparent what an important role facilitators play in that reception. Facilitators are individuals who themselves have reflected on their practice and have chosen to remain connected to the experience more intimately than as a past participant.

What do facilitators do? We spoke to facilitators in interviews for a Spencer–MacArthur funded study of the Madison classroom action research program, and here is what they told us.

Facilitators plan for action research meetings of four to ten teachers studying their practice, they provide feedback to individual researchers in a group setting, they document group progress, and they support group members. They attend facilitator gatherings about once a month to exchange ideas with colleagues.

Meeting Organization

While there are guidelines for ways to facilitate meetings, they are not written in stone, and each group maps its own course through the year of research.

"The first year (we) pretty much stayed close to the handouts and sort of the script, if you would, of the district, but then the second (year), by choice...we made changes."

"We used 80% of the materials (provided for facilitators) but we didn't always use them in the same way as other people used them and we didn't always use them at the same time. I sensed in our facilitators' meetings that we were all doing it a little bit differently.

"Sometimes our (facilitator) agenda was less important than the agenda that the researchers came in with."

Questioning Feedback

Group feedback of a particular type is important to the action research process. By asking questions of one another, participants are able to reflect more deeply on their individual issues and come up with their own strategies, thoughts or possible solutions.

"I think mainly I view (the role of facilitator) as one of asking questions and trying to get people to think about what it is that they're doing...questioning that allows people to think beyond what they might to begin with." "I ask a lot of 'why' questions. I ask a lot of 'how' questions. I ask a lot of questions that make them think some more and talk some more. I ask a lot of questions that try to get them to say what they were saying in a different way. I sum up. And I say, 'This is what I think I heard you say, the direction you are going,' that type of thing. And I listen really carefully to what they say."

"Our job is not to come up with ten solutions for another person's question. We need to think of questions we can ask that will help participants come up with solutions for themselves. We have to learn to be quiet with ourselves and not make suggestions until a person does their own thinking. This pushes people to think more about their question and not leave the meeting with ten strategies of someone else's. It is part of the reflection process."

Group Documentation

In some groups facilitators help with documenting the growth of group members.

"When I did my research one of the facilitators took copious notes, must have written down almost every word that I said. So when it came time for me to actually begin writing, I had several months worth of notes that this woman had written. I had the opportunity to look, and I could see my growth. When I facilitated I wanted to try to do it for others, so my co-facilitator did more of the verbal direction and I did a whole lot of writing and taking notes and providing this for people."

Group Support

The facilitator role is not always as easy one. As teachers take risks to challenge their assumptions about teaching and learning the journey can be emotionally draining. Facilitators work hard to provide a safety net so that when those frustrating moments come along for participants they receive the support and encouragement needed to grapple with and circumvent obstacles.

"I've been through the process and I call it 'mucking'. You know there's a part in the process where you just kind of muck through it. And we tell the participants-get your wading boots on because this is the hard part. You know, they reach that point of frustration where they can't find the right words for how they want to word their question, or they can't get the right data they need or that they want. Or they mid-stream decide to change their topic and go in a different direction. We're able to say, 'You're going to make it through, take a deep breath and let's talk.'"

Thank you to all of the facilitators, past and present, who are at the heart of the action research process. Without their hard work and dedication to peers there would not be an action research program in Madison.•

This year's facilitators include (from left to right) **Madge Klais, Barbara Spitz, Barbara Brodhagen, Judy Patrick, Jane Hammatt-Kavaloski, Celeste Robins, Ann Niedermeier, Ellen Ranney, Mary Klehr, Nancy Beck** and (missing from the photo) **Patty Schultz** and **Bobbie Marwell.**

Featured Action Researcher Turned Facilitator:

Mary Klehr

Mary's action research study, completed in 1997, was titled,"What It Means To Be A Teacher: Considering Our Identities." In it Mary documented teacher responses to questions such as: What does it mean to be a teacher? How do we define ourselves as teachers? How do our lives inform our teaching? She has continued her involvement with Action Research as a facilitator and member of the AROW Planning Committee.

Action Research: Participation Beyond the First Year

Mary Klehr, Elvehjem Elementary
Madison Metropolitan School District

Like you, I am a school teacher. I spend my days with children, exploring and crafting an understanding of the world within and beyond our classroom walls. The rewards are too numerous to count, but it's hardly an easy job. I feel overwhelmed more often than I'd like by this thoroughly consuming profession.

It's such a challenge to keep on top of what's going on in the classroom that when I'm informed of new initiatives–particularly when they seem unrelated, unclear, or unquestioned–I'm curious but awfully wary. On the other hand, I know how easy it is to fester, and for me, anyway, to be effective as a teacher, I need to keep learning. When I first read about Action Research in MMSD's "Continuous Improvement Quarterly," it had a unique charm. Here was a chance to work with other teachers around issues we deemed important. How promising!

At the time, I was particularly regretting the sense of isolation teaching can bring to those of us in self-contained classrooms, who, if we're not careful, tend to plan and teach alone. But being a teacher doesn't have to mean self-imposed confinement to the classroom. Being with colleagues willing to talk about what they did in their classrooms and who they were as educators had additional appeal for me. MMSD's Classroom Action Research (CAR) was the kind of initiative I wanted to try.

So I signed up, and as luck would have it, I became a member of a sharp and welcoming group of Madison peers facilitated quite skillfully by elementary school teachers Julie D'Onofrio and Laura Mueller. Our monthly meetings became increasingly important to us as we worked through the process of formulating and researching questions around real and persistent concerns we had regarding student achievement, curriculum development, community building, and equity in the classroom.

The real thrill was these were questions we teachers felt merited close scrutiny and systematic thought because they were tied specifically to our experiences and needs. It was challenging work: pushing ourselves to articulate our work forced us to become aware of our beliefs and motivations, and being truthful and attempting to change our teaching took effort and commitment. But as you might suspect, this kind of informal, purposeful dialogue with colleagues and the ensuing work in the classroom was completely engaging. We all flourished. And although meeting that final paper deadline didn't exactly add hours to my free time, it was useful to my teaching in ways so many other experiences aren't. It felt like a gift, and it still feels that way.

Even before our group met for our final session in May in order to wrap up our projects, I knew I wanted to continue involvement in Action Research. Who wants to give up a good thing? Luckily, there are various ways to participate beyond the first year.

* Participate again. It's allowed! For people who view the action research process as a continuous spiral of reflection and action, continued participation makes sense. To date, around two hundred eighty Madison teachers have participated, some twice, in the year-long experience.

* Some returning participants have become group co-facilitators (It's one of Madison's strengths that CAR groups are led by other teachers–people who intimately understand the language and realities of teaching). There are currently fourteen Madison educators involved in facilitating monthly CAR sessions.

"It was challenging work: pushing ourselves...to become aware of our beliefs and motivations, and being truthful and attempting to change our teaching took effort and commitment."

Mary Klehr, Elvehjem Elementary, Madison Metropolitan School District

* Membership in the AROW Network will keep you abreast of local reflections and developments through the newsletter. For membership information see About The Network, page 2 of this issue. You are welcome to attend monthly planning committee meetings in the basement of the Edgewood College Library. Call Cathy Caro-Bruce (608) 266-6456 for the schedule.

* Attend the annual A.R.O.W. Conference (dates this year were: April 23 and 24) to meet and talk with colleagues genuinely interested in networking and sharing their work with other teacher researchers. This event is a real shot in the arm!

* Peruse the variety of teacher research networks, journals, web sites, and national conferences recently listed in the AROW Network News, Volume 3, No 1 to find additional opportunities of particular interest.

* For the academically ambitious, apply for admission to a graduate program at UW-Madison or National Louis University where you can further study teacher research on a more theoretical level or engage in it as an integral part of your Master's thesis.

So go ahead. Give yourself permission to devote time to things that feed your teaching. It's worth it.•

University Support For Action Research: On Campus, In The Community . . .

A Focus on Results

Robert A. Pavlik

Bob is a professor of education at Cardinal Stritch University in Milwaukee. He has studied his own teaching practice and advises graduate students doing action research as part of their Master's Thesis.

Early in my teaching career I became curious about the meanings of several words. Dictionary definitions showed that "effect, consequence" and "result" are not synonyms, as our daily usage suggests. Effect: an outcome directly related to a cause and usually immediate. Consequence: a logical outcome, though less directly and immediately related to a cause. Result: a sum of effects and consequences yielding a final change.

I try to highlight the significance of these differences in meaning, since they direct our focus in very different ways. I encourage colleagues and students to focus their research clearly on "results" as they undertake their action research projects. I suggest they ask, What do we want to investigate...effects, consequences, or results of our teaching?...of our students' learning? ...of changes in schools?

Effects might focus our attention on test scores. Consequences might direct us to survey data on students' new interests after a unit of study. Results might help us notice that students who engage in Writer's Workshop develop new levels of confidence in their writing.

An example of results-focused research is a 1996 study by Rosalyn Young, who taught high school students in Milwaukee how to engage in action research. Rosalyn guided her students to determine if changing the name of their school would be a helpful part of the school's efforts to restructure. Her resulting paper contained several examples of increased student ownership (results) in the restructuring process. The final decision on the name change, based largely on recommendations from the students' action research project, was not to change the name of the school.

Graduate students at Cardinal Stritch University conduct action research focused on results. For a bibliography of results-focused studies contact Bob at the Graduate Education Department, Cardinal Stritch University, 6801 North Yates Road, Milwaukee, WI, 53217-3810 or call (414) 410-4374.•

Creating School – Community Partnerships

Dan Folkman

Dan is the chairperson of the Center for Urban Community Development, UW-Milwaukee.

One goal of Milwaukee Public School System (MPS) has been promoting the creation of opportunities for parental and community involvement in the schools. Action research is seen as a practical vehicle for implementing this goal. The idea is simple. Bring a group of teachers, administrators, parents and community representatives together and empower them to design and implement projects that help kids achieve, help parents help their children learn, and contribute to the struggle for economically viable, healthy, and safe neighborhoods. Implementation is not easy. There are multiple agendas which may render their working together pointless in the short term or, worse, place them at odds.

With an eye on collaboration not confrontation, the creation of a learning community has been added to the action research format. Again the idea is simple. Empower teachers, administrators, parents and community representatives by asking them to design and implement action projects that benefit the kids, families and/or community. Also, make explicit a second agenda. Build a learning community among the group members that is characterized by trust, respect and open communication as well as collective action. Create a spirit of participatory research and planning.

The University of Wisconsin-Milwaukee is a partner in this effort, offering an action research class which carries university and/or continuing education credits. The learning community class members reflect on their own efforts at creating a viable community while implementing their projects. So what does an empowered learning community engaged in participatory action research look like?

Location: the Milwaukee Education Center housed in the recently renovated Schlitz Brewery complex. It is nearly 5:30 pm and the Coordinator for the MPS Leadership Academy is setting a table with sandwich, fruit, chips and drinks. Teachers, administrators, parents and community residents begin to arrive. In all, eighteen members belong to the Learning Community. They have been meeting weekly as a participatory action research team with the goal to develop a template for parental involvement in the School to Work Initiative. They have completed several focus group sessions among local racial and cultural groups.

Two of the sessions were conducted completely in Spanish and Hmong. Through their own research, the members identified an array of opportunities and barriers to parental involvement and are preparing a written report that will be submitted to the Superintendent. Their recommendation is to initiate action learning groups in three or four schools. These groups should work to implement parent involvement activities that can demonstrate tangible benefits for the kids, schools, families and community.

Location: Pierce Elementary School, Milwaukee, Wisconsin. It is nearly 6:00 pm. The school social worker and VISTA volunteer arrange tables and chairs in the school library. Teachers, administrators, parents and neighborhood residents begin to arrive with chips, salad, sandwiches and drinks as contributions to their pot luck dinner. In all, sixteen participants belong to the Learning Community. They have the goal of helping the Riverwest Pierce Community Nursing Center meet its goal to a) provide immunizations to Pierce students and neighborhood children and b) create a multi-service community health center serving the Riverwest neighborhood. Toward this end the members have recommended changes in the Center's community outreach efforts, promoted free immunization services, coordinated health related service learning activities, facilitated parent child communication workshops, produced a winter clothes exchange, and helped with office management needs.

These are two examples of a number of collaborative action research projects implemented in the Milwaukee Public Schools. What is unique about them is the effort to bring together teachers, administrators, parents and community residents to design and implement projects to meet their common interests. As a learning community, members assess their own needs, set their own goals, design and undertake their own projects, and collect information to assess their own performance and impact on the school, families and community.

For more information on the learning community strategy contact Dan Folkman (414) 227-3285. For a copy of the report on parental involvement in MPS School to Work contact Steve Baruch at (414) 277-4612. To learn more about the MPS VISTA project and the School Community Integrated Network contact Paco Martorell at (414) 475-8062.•

. . . And Internationally

Wisconsin Action Researcher in Namibia

Kenneth Zeichner

Ken is a professor of elementary education at University of Wisconsin–Madison and a member of the AROW planning committee. He is passionate in his support of action research.

Since May, 1994 I have been supporting the action research of teachers and teacher educators in Namibia. Namibia is a country of approximately one and one half million people in Southern Africa that gained independence from South Africa in 1990 after a twenty–three year liberation struggle. At independence, about two thirds of the population (mostly Black) could not read or write and nearly forty thousand young Namibians of school age had no access to schools. Soon after independence a new education policy, "Education for All" (EFA) sought to achieve at least ten years of basic education for all Namibian students free of any bias because of race, ethnicity, gender or social class. This transition from educating a small group of elites under apartheid to educating all students involved much more than increasing the number of children and adults in educational programs. It also involved replacing the old educational philosophy and practices with those suitable for educating all Namibians as a fundamental right of citizenship.

The new policy of EFA was founded on a different view of teaching and learning and knowledge and how it is acquired than that which existed in the racist pre–independence system. The goal of the new policy was to transform an authoritarian teacher–centered system to a democratic learner–centered system. The new philosophy of learner–centered education which was based on the four principles of access, equity, quality, and democracy called for the active involvement of the learners in the learning process, and a focus on helping teachers learn how to go beyond the mere acquisition of knowledge to learn how to use it, transform it, and teach it in a way consistent with the democratic goals of post–independence Namibia.

Teacher Education in Namibia

Before independence, teacher education was part of the political agenda of separation of the races to maintain social injustice. The current system of teacher education was developed by faculty and staff from the University of Umea in Sweden in cooperation with Namibians who work in the Ministry of Education and Culture. In 1993 a staff development course for cooperating teachers and teacher educators in Namibia's four Teachers Colleges was initiated to further the goals of the EFA reform. Action research (or critical practitioner inquiry as it is now called in Namibia) forms a central part of this course and of the preservice teacher education program. All student teachers conduct action research projects as part of their teacher education curriculum. This work is facilitated by the teacher educators who also conduct action research. I have been going back and forth to Namibia since 1994 to work with the school and college based teacher educators who are trying to transform teacher education in a learner–centered and democratic direction.

The Staff Development Course

Thirty teachers and teacher educators have just completed the first phase of this staff development course. During the year they work full time in elementary schools, secondary schools, and teacher colleges. During almost every vacation break over the last few years they come together for one or two week blocks of time to meet to complete the various course modules (e.g. on learning theory) and to discuss their ongoing action research groups. Members of the teacher education reform project staff including Bob Tabachnick, Professor Emeritus, University of Wisconsin–Madison, Helen Meyer, University of Wisconsin–Madison graduate student, and myself, worked with the students during these intensive periods. My role during these meetings was to work with the whole group in some area (usually related to action research) and to meet individually with each student about their research projects to offer guidance and advice.

The action research that has been done by Namibian teacher educators in this course has been focused on furthering the goals of the overall EFA educational reform. Many of the studies, for example, have dealt with making teacher education classrooms more democratic places where students are more active participants in the learning process. Below is a brief description of the action research study of one teacher educator, Alina Kakunde Amukusu, a second grade teacher in Oshakati Junior Primary school in the rural north of Namibia.

An Example Action Research Study

Alina investigated problems that she was having in her classroom motivating some of her students to read in their mother tongue. Alina talked with her forty pupils and with their parents about the possible reasons for this situation. Hypothesizing that the lack of adequate exposure to books was one important dimension of the problem, Alina constructed a reading corner in her classroom and examined how the introduction of this component affected the attitudes and skills of students who had and had not been having problems with reading. Some of the books for this reading corner were produced by the children themselves with assistance from Alina. Alina then systematically observed the use of the reading corner and was able to document some improvement in both the attitudes toward reading and reading skills of some of the children who had been having problems. She then conducted a workshop for fifteen other teachers in her school where she shared what she had done. This led to a collaborative writing workshop where materials were produced for reading corners in several classrooms throughout the school.

Other Namibian studies, including a paper soon to be published in the journal Educational Action Research about the whole project, are available from Ken Zeichner at e-mail: zeichner@facstaff.wisc.edu or telephone: (608) 263-4651.•

Here's A Thought:

Group Culture Makes a Difference

Cathy Caro-Bruce

Cathy is a Staff Development Specialist and Coordinator of the Classroom Action Research Program, Madison Metropolitan School District.

Much time is spent trying to understand strategies which will help teachers learn the action research process: how to come up with a powerful question, strategies to collect and analyze data, and writing about their work in a thoughtful, reflective way. One of the most critical elements to the success of this experience of reflection on teaching practice, however, lies not in understanding and implementing the action research process, but in creating a positive, supportive group culture in which teachers can reflect.

What we have learned in Madison over the last eight years is that creating this emotionally safe place for people to talk is critical, but it does not just happen. The facilitators must skillfully weave together both the process and the group dynamics. During the first few meetings, time is spent building trust--not by talking about "trust-building," but with the facilitators providing opportunities for participants to learn more about who is in the group, what they think about, what they believe in, what's worrying them, and where they are headed professionally. This is accomplished largely by asking questions and providing time to share life stories which uncover some professional and personal ideas and philosophies.

> **"One of the most critical elements to the success of this experience of reflecting on teaching practice lies not in understanding and implementing the action research process, but in creating a positive, supportive group culture within which teachers can reflect."**

This foundation provides the basis for all the work which occurs throughout the year. As the participants' questions become more complex, or as issues arise in the classroom or school, it is the group which asks the hard questions of each other to allow productive problem solving to occur. The group is guided in their actions by norms which encourage open, honest reflection and which keep the environment safe to explore the hard issues.

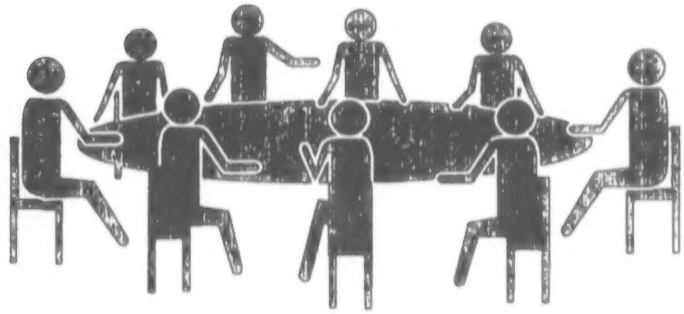
When teachers talk about the value of their classroom action research experience, it is often "the group" to which they refer. What they are really talking about is having this unique space in their lives to think, to work, to share, and to support their colleagues in the best possible ways. It is only by establishing a positive and supportive culture that this can occur.•

Editor's Note

We appreciate your comments, suggestions, and article submissions to this publication. Please share resources you are aware of, action research programs you are involved with, teacher studies, and thoughts about the action research process with us. Send your feedback and/or submissions as email to : rdmarion@students.wisc.edu (within the text of the email works best) or to Robin Marion, Education Sciences, 1025 W. Johnson St, Rm 681, Madison, WI 53706. Thanks! RDM•

**AROW Network News
Teachers' Workshop, MMSD
545 W. Dayton Street
Madison, WI 53703**

284



The Action Research of Wisconsin Network (A.R.O.W.) Conference

The purposes of the conference are to:

> value teachers, principals, and student teachers as designers and producers of knowledge;

> recognize action research as a process for professional growth and change;

> develop a regional network for mutual sharing and support, and to produce knowledge about teaching and learning; and

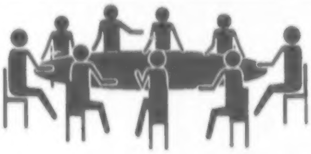
> promote collaborative efforts among teachers, principals, student teachers, school district staff, and university faculty.

Action Research of Wisconsin

A.R.O.W.

Sixth Annual
Action Research of Wisconsin Network Conference

April 23-24, 1998
Inn on the Park
Madison

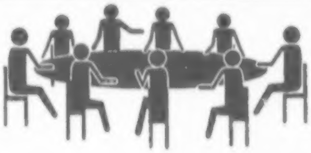


- **Over 30 round table discussions**
- **Over 20 poster displays**

NEW FEATURE

In depth workshops on action research processes and strategies

...look inside for more information



What is Action Research?
Action Research is a process by which teachers and principals examine their own educational practice systematically and carefully using the techniques of research. (Watts)

What is the Action Research of Wisconsin Network Conference?
The purposes of the conference are to:
- value teachers, principals, and student teachers as designers and producers of knowledge;
- recognize action research as a process for professional growth and change;
- develop a regional network for mutual sharing and support, and to produce knowledge about teaching and learning;
- promote collaborative efforts among teachers, principals, student teachers, school district staff, and university faculty.

Who will attend?
Anyone who is involved, has been involved, or is interested in beginning action research. Teachers, administrators, support staff, student teachers, university faculty, and parents are welcome.

KEYNOTER: **Janet Miller**
Professor, National-Louis University's
National College of Education
"Valuing Teacher Research"

AGENDA

Thursday, April 23

3:00	Registration/Refreshments
4:00	Welcome/Keynote Address
4:30	Round Table Session I
5:25	Round Table Session II
6:20	Dinner
7:20	Round Table Session III
8:00	Informal Networking
8:30	Adjourn

Friday, April 24

8:00	Refreshments
8:30	Workshops begin
11:30	Adjourn

WHAT'S INSIDE..

- ***Descriptions of Thursday Round Table sessions***
- ***Descriptions of Friday morning workshops***
- ***Registration information***
- ***Credit information***
- ***Directions***

ROUND TABLE DESCRIPTIONS- [A]

(A-1) **"We want to be with our Friends",** ***Diane Coccari, Black Hawk Middle-Madison.*** With half of the students in this class speaking English as their second language, this teacher observed the diversity of her classroom reflected in how students sorted themselves for academic and social activities. This study looks at a focus on creating a classroom where students worked together comfortably with diverse groupings of classmates.

(A-2) **Team Action Research: Practical Solutions,** ***Dan Folkman-UW-Milwaukee, Sheryl Gotts-Milwaukee Public Schools, and Doug White-Department of Public Instruction.*** Many issues and concerns surface in doing action research as a team. Representatives from a seven school health action research initiative will focus on the framework they have developed for the facilitation of team action research.

(A-3) **Full Circle: A Collaborative Mentoring Project with College and Middle School Students,** ***Nancy Nelson-Edgewood College, Jacque Strahl and Stacy Sleeter-Toki Middle, Madison.*** Explore the impact of a collaborative effort with a one-on-one mentoring program between college students and sixth graders.

(A-4) **The Impact of the Internet on the Role of the Library Media Specialist,** ***Madge Klais-LMC Program Support-Madison.*** Based on surveys of library media specialists, this action researcher discovered the level of discomfort many library media specialists had with using the Internet. This work led to recommendations to improve and support the librarian's role in implementing the Internet in their libraries and schools.

(A-5) **Learning through Service: Enhancing Academic Achievement through Service Learning,** ***Jane Hammatt-Kavaloski, Shabazz High-Madison.*** One researcher takes a critical look at the impact of service learning projects on attitudinal, behavioral and academic performance. She reflects on the potential impact of service learning on the most marginalized students as learners and contributing members to society.

(A-6) **"Gettin' the Word Out",** ***Renee Hoxie, Jefferson Middle-Madison.*** Hear from one LMC Director as she shares what she learned about teachers' perceptions about using the LMC resources before teaching curricular units and the changes she made to better support and inform staff.

(A-7) **Reluctant vs. Eager--what makes students eager to read?,** ***Archie Barribeau and Patricia Bruhn-Chegwin El, Fond du Lac.*** In this session, you will learn what these teachers discovered about what makes children want to read and strategies to help foster eager readers.

(A-8) **Finding the Right Question,** ***Nan Youngerman, Cherokee Middle-Madison.*** Figuring out an action research question can be one of the most challenging phases of the action research process. Come look at teachers' questions and learn a process which uses the support of colleagues called "focusing a question" to develop action research questions.

(A-9) **Asking the Right Questions: A Beginning,** ***Rebecca Jallings, West High-Madison.*** Join this action researcher as she shares her fascinating journey exploring the following question: "How can we work towards an understanding of the silencing that happens in a diverse group of learners even or especially, after community has been successfully established and begin to dismantle that silencing we have created together so that we can successfully learn from and about each other.?"

(A-10) **Fostering Habits of Reflective Teaching,** ***Jeffrey Maas and Helena Bosben, Lincoln Elementary-Madison.*** Taking as its premise that the action research process needs to become a habit of professional life, this session will examine the ways in which a cooperating teacher and a student teacher used basic tenets of action research to understand their classroom. Special attention will be given to techniques useful to beginning teachers.

ROUND TABLE DESCRIPTIONS- [B]

(B-1) **Teachers Teaching Teachers Technology,** ***Nancy Toll and Jill Tammen, teachers and Dan Koch, middle school principal-Hudson Public Schools and Dr. Mary Lundeberg-UW-River Falls.*** This collaborative team will talk about an effort to provide increased support for staff to learn how to use new technology as effective instructional tools. This three year partnership embraces using constructivist practices, direct support to teachers, and building teacher leaders to support continuing efforts.

(B-2) **Shared Scientific Inquiry,** ***Laura Huber, Leopold Elementary-Madison.*** Come hear this action researcher's journey moving from a hands-on, activity-based science curriculum to a student inquiry-based curriculum.

(B-3) **Facilitating Action Research Groups,** ***Julie D'Onofrio and Laura Mueller, Muir Elementary-Madison.*** Two facilitators share their experiences, strategies, and words of wisdom from what they have learned in their many years of facilitating action research groups.

(B-4) **Problematizing the Cooperating Teacher/Student Teacher/University Supervisor Relationship,** ***Elizabeth Day, Sue Fondrie, and Kim Wieczorek-UW-Madison.*** The questions this group asked within their own practices as elementary education supervisors led to myriad new questions and considerations, including "How can we ask questions that promote useful dialogue?" "How can we encourage student teachers to be cognizant of the moral dimensions within teaching?" and "How can metaphors aid in triad communications?" Come explore these questions together.

(B-5) **Personal Perceptions of Teaching and Learning,** ***Mary Klehr, Elvehjem and Heidi Donovan, Wright Middle-Madison.*** These two action researchers conducted extensive interviews with adults and children to investigate different perceptions of teaching and learning, and what does it mean to be a teacher. Explore what new thoughts and questions their findings raise for you.

(B-6) **Action Research for Undergraduate Future Educators,** ***Tiffany Davis, Rachel Germain, Malay Keodouangsy, Jeffrey Lubansky, Tung Pham, UW-Madison.*** Each member of this group has an action research question based on their work as tutors, teacher aides, or in-home helpers/mentors. They will share their studies and a bit about the nine week process they experienced as part of their seminar.

(B-7) **A Professional Collaboration between a College and an Elementary School: A Study of Tutoring and Learning in an Elementary School,** ***Nancy Nelson, Edgewood College and Annie Odom, Leopold Elementary-Madison.*** Come here the story of the impact of college students tutoring elementary students, as well as the impact on college students, in particular on their understandings about diversity and academic need.

(B-8) **Footsteps Today... for Tomorrow,** ***Patti Lindelor, Hope DioRio, and Mary Frostman, CESA 12- Iron River.*** The goal of the Oulu Action Research team is to positively improve behaviors that lead to intentional and unintentional injury within the school climate. The question the team will discuss is "Can we teach positive attitudes and healthy responses in relationships, including peer-to-peer, student-to-adult, and adult-to-adult?"

(B-9) **Developing a New Format for Bringing Graduate Courses to Classroom Teachers,** ***Dr. Barbara Schrimshire, Cardinal Stritch-Milwaukee.*** This action researcher's question embraces a new approach to meeting the classroom teacher's needs. On-site instruction, conferencing, observations and reflections are at the core of this experience.

(B-10) **Planning for Change: Using Standards, Benchmarks, and Dimensions of Learning to Structure Student Research,** ***Laura Holt, Cherokee Middle-Madison.*** As a way to encourage students to use higher level thinking skills, this library media specialist developed a planning guide to use with teachers in designing library research projects. Come hear what she learned as she tried to implement this collaborative effort.

(B-11) **Achievement through a Combination of Mastery Learning and Learning Styles,** ***Margaret Thomas, Beloit Schools and National-Louis University.*** Learn how one action researcher looked at the effect of using mastery learning and learning styles strategies to impact ninth grade art students over a three year period. The combination of strategies had very positive results.

ROUND TABLE DESCRIPTIONS- [C]

(C-1) **Writing and the Action Research Process,** ***Jeff Maas, Lincoln El.-Madison.*** The action research process is intertwined with written language, from the initial question-posing stage to the final write-up. This discussion will examine ways to foster authentic writing. Topics will include journal writing techniques, understanding the influences of genre and audience, and reframing the final report to encourage voice in the creation of classroom stories.

(C-2) **Making the Transition from Action Researcher to Facilitator,** ***Patty Schultz, Lincoln Elementary, and Nancy Beck, Muir Elementary-Madison.*** Come hear the journey of these two action researchers who took their own inquiries farther...into the realm of facilitating. They will share their process, insights and feelings for those who may be wondering about making the transition to the facilitator role.

(C-3) **Put Your Money Where Your Math Is,** ***Sue Maronde, Woodview Elementary-Grafton.*** Explore with this teacher how she tried to learn and reflect on how children understand money. Her hands-on curriculum included student reflective discussions on their own growth and understanding.

(C-4) **Yes We Can!,** ***Susan Kelm, Mineral Point Elementary and Tom LoGuidice, UW-Platteville.*** Come learn about one first grade team's efforts to use an integrated team approach to help their students grow in reading and learn other essential skills. You will also hear how this project is connected to a creative intern teaching program.

(C-5) **The Wellness Promotion Project, *Marcia Staum, Mary Ellen Lalko, Nancy Young, Mary Ho, Grand Avenue School and Marilyn Frenn, Marquette University.*** This school-community collaborative effort is seeking to address the physical, mental and social health of middle school students. Their story will highlight how their initiatives have had an impact on curriculum and students.

(C-6) **Stories from the Conference, *Robin Marion, UW-Madison.*** There are many ways to share your experiences with the action research process and your research findings. The Action Research of WI (AROW) Network has as one of its goals the facilitation of that sharing. The fall newsletter, *The AROW Network News,* will be dedicated to your stories as gathered during the conference. Come to this session to share your story for retelling in the newsletter or stop by the Resource Room and fill out a story telling form for inclusion in the fall issue.

(C-7) **Focusing on Self-Reliance to Help Students who are Emotionally Disturbed be Successful, *Courtney Moffatt, Edgewood College and Jamie Egide, West High-Madison.*** Many students fail to realize the importance of taking responsibility for themselves to obtain the necessary skills they need in the future. Using a specially designed unit on self-determination, these teachers focused on how a high school special education teacher can increase her student's self-reliance.

(C-8) **Reflection and Improvement: Teaching and Learning in an Early Childhood Education Course, *Ni Chang, UW-Madison.*** One researcher takes a critical look at the instructional strategies which will best benefit her students by using journals, student critiques, and project-based learning. She then shares how she uses a reflective process to make instructional changes.

(C-9) **Action Research in Preservice Teacher Training in Early Childhood and Early Childhood Exceptional Education, *Ellen Browning, Edgewood College.*** This researcher chose to look at the impact of using different preservice training models including having a team of individuals plan and deliver the course content and experiences, and a collaborative model involving students supporting, working and reflecting together.

(C-10) **Having Fun Together, *Jamie VanderHoop, Lowell Elementary-Madison.*** How does using project-based curriculum affect the reading, writing, and social skill development of students in a team taught inclusionary classroom. Come hear one action researcher's journey.

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Conference Information

FRIDAY WORKSHOPS

Below are descriptions of the Friday morning (8:30-11:30) workshops. Sign up on the registration form if you are interested in attending.

The Action Research Process, ***Janet Miller, National-Louis University and Ken Zeichner, UW-Madison.*** In this workshop, we will examine action research processes as well as their philosophical and methodological frameworks. Because action research is local and specific, participants will have time to explore action research possibilities for their own educational contexts.

Facilitation: The Key to Successful Action Research, ***Eileen Dagen, Sally Habanek, and Debra Taylor, CESA #1.*** This session will provide participants with the opportunity to learn and practice the facilitation strategies necessary for working with action research teams. No prerequisite skills are necessary. While the steps in the process itself may seem simple at first glance, it is the process that takes place during each phase that determines whether or not learning and growth will take place. Learn techniques which will help individuals and teams emerge with a true sense of purpose and outcome.

Getting Started and Sustaining Action Research, ***Cathy Caro-Bruce, Madison Metropolitan School District, and Doug White, Department of Public Instruction.*** Come talk about and problem solve strategies for embedding action research into your school district. Hear about some models that exist for bringing this powerful staff development activity into your district, and talk with your colleagues about implementing and sustaining action research over time.

CREDITS

Professional Advancement Credit (.5) will be available to Madison Metropolitan School District teachers. Checking in at the Registration Desk will take care of this credit being reported. D.P.I. Credit (five hours) will also be available to participants. You need to sign a sheet at the Registration Desk to receive these hours.

POSTER DISPLAYS

Be sure to stop and see the Poster Displays! Almost forty student teachers and classroom teachers are contributing to this special conference feature.

RESOURCE ROOM

Books about action research and books with collections of action research studies are available for you to peruse. There will be some books for sale, as well.

LOGISTICS

The Inn on the Park Hotel is located right on the Capitol Square at 22 S. Carroll St., Madison, WI 53703. The phone number is 608-257-8811. If you are staying over Thursday night, ask for the "Action Research Block." These rooms are being held until **April 9th** at the reduced rate of $79 single/$85 double. Call 1-800-279-8811 to make reservations. Parking is included in your fee. Tell the attendant you are coming to the Action Research Conference.

TYPE OR PRINT

Registration Form

Name ______________________________
School/Organization ______________________________ Grade/Role ______________
Mailing Address ____
City ____________________ State ________ Zip ____________________
Phone (____) ____________________ [w] (____) ____________________ [h]
(____) ____________________ (FAX) ______________________________ (email)

Please check one: (All fees include parking, registration materials and dinner.)

______	$27.00	**Action Research of Wisconsin Membership fee '98-99 and Conference registration** (1998-99 AROW membership fee= $10; Conference Registration = $20; Discount of $3. Membership year begins in May.)
______	$20.00	**Teacher/Administrator/Others/Non-Member**
______	$17.00	**Action Research of Wisconsin current Member Conference Registration** See label on brochure to verify membership.
______	$10.00	**Presenter/Student**
______	$20.00	**Presenter/Student plus 98-99 AROW membership**
______		**I would prefer a vegetarian meal.**

SUBTOTAL ____________

THURSDAY REGISTRATION:

Please list the session numbers of your first, second and third choices for each group. We will try to place you in your top choices. Registration will be taken on-site, but we cannot guarantee that you will be able to attend your preferred sessions.

	1st choice	2nd choice	3rd choice
Session A	________	________	________
Session B	________	________	________
Session C	________	________	________

FRIDAY REGISTRATION:

These sessions will be the same rate for members and non-members. **The workshop fee is $15, and $10 for students.** Please indicate your session choice below. (The fee includes materials and a continental breakfast.)

______ **The Action Research Process (Zeichner/Miller)**

______ **Facilitation: The Key to Successful Action Research (Habanek/Dagen/Taylor)**

______ **Getting Started and Sustaining Action Research (Caro-Bruce/White)**

SUBTOTAL ____________

TOTAL ______________

Please enclose payment with your registration form and return by **APRIL 13** to Cathy Caro-Bruce, Madison Metropolitan Schools, 545 W. Dayton Street, Madison 53703. We will not bill your district, so enclose money or participants can pay on-site at the conference. If you have questions, call 608-266-6456. You may also FAX your registration to 608-267-1635.

Make check payable to the Action Research of Wisconsin Network or AROW.

The Nature and Impact of An Action Research Professional Development Program in One Urban School District [1]

Cathy Caro-Bruce, Madison Metropolitan School District

and

Ken Zeichner, University of Wisconsin-Madison

FINAL REPORT

May, 1998

Focus

The purpose of this study is to document the nature and impact of a school district sponsored action research professional development program for teachers, principals, and other staff in the Madison Metropolitan School District, Madison, Wisconsin.

The Program

This professional development program began in 1990 and to date, has involved nearly 300 staff in conducting research about their own practices. During their participation in this program which runs from August to June, practitioner researchers formulate a research question and carry out an inquiry related to this question over the course of the school year. A few individuals have participated in the program for a second year and have either continued with the study begun during the first year or have conducted a new study. The researchers meet once per month for a half or full day in small groups of 4-10 people that are facilitated by two experienced action researchers. Although a few people in the same group might be from the same school, the groups are all interschool in composition and are structured around either levels of schooling (e.g., middle school) or around broad themes (e.g., technology, ESL, integrated curriculum, race and gender equity). Most of the facilitators are teachers or other instructional staff who have participated in the program in previous years. Six days of released time per year are provided for each participant, paid for by a combination of district funds from different program areas. The total cost per action researcher for this released time and for supplies and materials to support their research is approximately $550 per researcher. Seminars are held about every six weeks for the group facilitators that provide guidance and support in the facilitation of the research groups. Researchers complete a written report of their studies that are then published by the school district and distributed to all of the schools in the district. Categorized abstracts of all of the studies have been made available on the school district's web page [2] and the complete studies are available from the Staff Development office to those who request them. An annual action research conference held in Madison provides program participants with an opportunity to share their research with a statewide audience from colleges and universities, school districts, and the state department of public instruction. The school district has produced four theme-based videos of participants discussing their action research that have been shown on local cable TV. All participants receive district professional development credits for this program or can elect to receive graduate credits through the Department of Curriculum and Instruction at the University of Wisconsin-Madison.

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[1]. Funding for this research was provided by a grant from the John D. And Catherine T. MacArthur and Spencer Foundations under the Professional Development Research and Documentation program. The views expressed are solely the responsibility of the authors.

Research Questions

- What is the nature of the action research process in this program? What happens in the action research groups over the course of a year? What are the key aspects of the organization and facilitation of the groups? What are the obstacles that researchers experience?
- What is the role of knowledge previously produced in the program in informing the research of participants? What happens to the knowledge produced through action research once a study is completed?
- How has the program affected the way that participants think about their practice?
- How has the program influenced the practice of participants?
- How has the program influenced student learning?
- How has the program influenced the culture of particular schools?
- Is there any evidence of the influence of individual studies beyond the specific classrooms and other learning venues in which they were conducted?

Methodology

Interviews were conducted with 74 individuals who had conducted action research in this program as well as with 10 individuals who had also facilitated action research groups. We interviewed both individuals who were participating in the program during our study (once in the fall and once in the spring) and those who had completed the program in previous years. Originally we had planned to interview the principals of all of the action researchers, but because of logistical problems in scheduling these interviews, we ended up interviewing only 2 principals.

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[2] Http://www.madison.k12.wi.us Look under the Staff and Organization Development homepage under classroom action research.

In order to minimize the likelihood that participants would withhold information critical of the program, most of the interviews were conducted by project staff who were not affiliated with the school district. Confidentiality was maintained for teachers with regard to the interviews.

We also read and analyzed all of the studies that had been done in this program since 1990 as well as 4 videos that were produced for local cable TV. Here we examined both the substance of the research that had been conducted and researchers' comments about the process of doing action research.

Two action research groups, a group on race and gender equity (1995-96) and a group on assessment (1996-1997) were the focus of our efforts to document in depth the nature of action research in this one school district. Robin Marion, a project assistant, co-facilitated both of these action research groups with Cathy Caro-Bruce. A variety of data provided the basis for our documentation efforts including detailed field notes that were recorded by Robin at each of the 10 meetings for each group, interviews with the 12 researchers who participated in these groups, an examination of the published studies of the 12 participants, and artifacts that were associated with the group meetings such as handouts and feedback sheets completed at the end of each meeting by all participants.

Findings

1. The nature of this program as a professional development activity.

Our analyses indicate that the following are the critical features of this program as a professional development activity.

- It is a voluntary program in which teachers[3] assume ownership of the professional development process (e.g., choosing their own research question, data collection and analysis strategies, etc.). Because teachers can choose their own research issues and can connect their research to their current concerns and work situations, they develop a personal investment in the process that is often missing from professional development activities for teachers.

- There is a recognition of and respect for the knowledge that teachers bring to the activity and for teachers as professionals. This was communicated by the provision of released time (providing space for thinking and working away from the hectic pace of the normal workday), comfortable meeting venues away from school, the particular way in which meetings were conducted that embraced teachers' struggles and provided intellectual challenge, and the opportunities made available for teachers to present and/or publish their work.

- The activity takes place in a nurturing and supportive environment over an extended period of time. The groups provided teachers with emotional support and a chance to think deeply about their practice with colleagues, situations that many thought were missing from their everyday work lives. The authentic nature of the communication in the groups (e.g., people "really listening" to each other) was an important aspect of the group experience for teachers.

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[3] The term "teacher" is used to refer to all MMSD staff who participated in the program with the exception of principals (e.g., classroom teachers, librarians, social workers, etc.).

Although there was some variation across research groups, the group meetings were conducted according to a particular set of assumptions about how teacher learning is best supported. Specific rituals and routines (e.g., check-in and check-out procedures) in the groups provided a culture for teacher learning. Participants in the groups developed their own criteria for ways to interact with each other, how to choose a research question, etc. that provided unique cultures within the groups. There was an emphasis by the facilitators on modeling the asking of questions to further teacher thinking rather than on providing answers. There was a general structure to the activities in the groups over the course of the school year (e.g., development and refinement of a research question, September-November). Facilitators play a number of different roles in the groups that include: providing an overall framework within which the research is conducted, asking questions to help teachers think more deeply about their practice, providing technical assistance in forming and refining questions, collecting and analyzing data, helping teachers locate literature and resources related to their research topic, providing teachers with written records of group conversations about their projects, and in supporting teachers in the writing their research report.

The support for the group facilitators is an important feature of this program. This is accomplished by providing them with an overall structure for the operation of the groups, numerous resources for use in the groups, and a regular seminar in which to discuss issues related to group facilitation. Group facilitators work in pairs which provides another level of support for group facilitation, and an experienced facilitator is often paired with a beginner to provide mentoring for new facilitators. Most interviewees felt that it is important for facilitators of action research to have gone through the process themselves. It was argued that this firsthand experience enables the facilitators to be able to empathize with the struggles that teachers often experience in conducting research and to understand the subtleties of the process.

The program requirement of writing a final report of the research for publication in the district, although feared initially by many teachers, was felt by many to be an important vehicle for helping them analyze and synthesize their research. Many teachers found it difficult to keep up with the journal writing that was encouraged by facilitators, but some time for writing in journals was provided during the group meeting times to compensate for the time pressures experienced by teachers.

2. Obstacles and difficulties experienced by teachers while doing action research

Although most interviewees stressed the positive nature of the experience, some shared

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with us difficulties that they had encountered during the process.

- Some interviewees felt that there are increasing outside pressures on teachers from the school district that intensified their time problems. Some teachers said that they had little time to do things like collect and analyze data, write a research report, etc. because of these increased demands. The implementation of new standards, benchmarks, and assessments in the district with regard to several curricular areas is an example of an outside pressure cited by teachers.

- There were some problems in finding substitutes for teachers during the group meeting times. There were a few instances of teachers being called back to their schools because of the inability to find any substitute, a few instances of teachers complaining about the qualifications of the subs provided, and several instances of complaints about the extra work involved in preparing for a sub.

- A few teachers felt that the time frame of nine months is too short to conduct action research and write a report about it. The district has begun to allow a few teachers to continue for a second school year in the program.

- In some of the larger groups, there was occasionally a problem where there was not time during a given session to let everyone report on their progress and get feedback from the group. It is important to keep the groups small enough so that all researchers can have adequate time during every group meeting to discuss their progress.

- Occasionally, when several people from the same school were gone to attend action research meetings on the same day, there were problems in the school with substitute coverage or with pupil behavior. The use of interschool groups minimized this problem and were also preferred by many interviewees because they felt freer to talk with colleagues who do not work in their own school. Participants felt that the opportunity to interact with teachers from other schools and subject areas broadened their perspectives and gave them a better sense of what is going on in the school district.

2. What happens to the knowledge produced in this program?

We found that interviewees had little knowledge of the action research studies published by the district before they joined an action research group. A few teachers who were located in schools where others had participated in the program had read and used studies, but the vast majority of action researchers had not. Several teachers reported using previous action research studies to inform their research after they joined the program and found out about the published studies. The practice of distributing bound volumes of the studies to each school and the annual action research conference were not effective by themselves in building more awareness and use of the studies. During the course of our research, several other strategies were added. Our interviews revealed the following ways in which participants shared their research with others:

- A number of teachers were asked to talk about their research at school staff meetings. One principal copied a teacher's study and put copies in all of the staff mailboxes. A few teachers were asked to go to other schools to discuss their research. Several teachers discussed their research at professional development sessions they conducted within the district. Several teachers also discussed their research in teacher education classes at the UW-Madison or in MMSD action research groups in subsequent years.

- The district produced four TV shows that involved teachers talking about their research. These were shown repeatedly on local cable. The district Staff Development Quarterly as well as the newsletter from the Wisconsin action research network featured a teacher's research study in each issue. During the course of our study, abstracts of all studies done since 1990 were put on the district's web page under different categories. A bound version of these abstracts, Voices from Madison, was also distributed throughout the school district and was catalogued in the UW-Madison's School of Education library.

- During the course of our research, four teachers discussed their studies at the annual meetings of the Northern California teacher research community in Monterey. To date, 13 of the MMSD action researchers have published their work in the NEA journal Teaching and Change . Several others published their studies in a special issue of the Elementary School Journal. Many teachers have discussed their studies at the annual action research conference held in Madison.

3. How has the program influenced how participants think about their practice and their actions?

We found much evidence that participation in this program influenced the ways in which teachers think about their work and their teaching practice. Although there was variation in the effects reported by different individuals, the following themes emerged in our data:

- Many teachers reported that their participation in the program helped them develop more confidence in their ability as teachers to influence their work and the circumstances in which they practice. They argue that they now feel a greater sense of control over their work and are more proactive in dealing with situations that arise. Action research was an energizing and validating experience for many teachers.

- Many teachers told us that doing action research caused them to look at their teaching in a more analytic, focused and in depth way, habits that many claim they have now internalized and made use of subsequent to their participation in the program. Teachers told us that they are now more likely to step back and examine what they are doing using the tools they acquired in the program, and they are now more concerned with the need to gather data to understand the impact of their teaching. Teachers describe the thinking that they do in the daily course of their work and in most professional development experiences as superficial in comparison with the thinking about their practice they did while doing action research.

- A number of teachers told us that they are more likely now to talk with colleagues in their buildings about their teaching and that being part of an action research group convinced them of the importance of collaborative work with other teachers. They also said that the quality of these conversations is of a higher quality than before.

- Several teachers told us that the action research experience raised their expectations for how they should be treated by others. Because they felt that they were treated with respect and trust within this program and were given lots of support, they now expect other staff development activities to display the same respect for teachers and ambitious view of their capabilities. The idea of teachers producing knowledge that can be valuable for others was a surprise to many, but is another dimension of the program that helped teachers to develop a more positive view of themselves as teachers and of the teaching profession.

- There was a "multiplier effect" in the learning that occurred in the groups. Teachers said that they learned things about teaching that were helpful to them and that caused them to rethink aspects of their teaching from all of the studies conducted by teachers in their group.

- There is overwhelming evidence in our data that teachers became more learner-centered in their practice, in part, as a result of gathering data from their students during their research. Many teachers told us that they are now much more convinced of the importance of talking to their students and listening carefully to them, that they now listen much more closely and effectively to their students than before, and that they have developed higher expectations for what their students know and can do as a result of closely studying them in their action research. Many teachers developed a new appreciation for the knowledge their students bring to the classroom.

- There is some evidence in our data that the development of a greater disposition to listen to students leads to more democratic and interactive work in classrooms. Many teachers told us that they are now more willing to let their students participate in decision making about classroom affairs including curriculum issues, and a number of teachers reported movement to more interactive classes where students are more actively involved.

- Several teachers told us that because of habits acquired during their action research, they now keep much more detailed documentation about their students' academic progress.

4. Is there evidence of any influence of doing action research on pupil learning?

Although there is very little evidence in our data of improved learning as measured by standardized test scores, many of the interviewees reported improvements in pupil attitudes, involvement, behavior, and/or learning as a result of the specific actions taken as part of their research. The evidence for these changes is provided by teacher observations, careful documentation of classroom activities, the analysis of student work samples, and teacher designed assessments. In a number of cases, teachers reported that the learning that resulted from the actions implemented as part of their research were greater than gains seen before, either from the same students, or from different students with the same curriculum. We are not able to provide any evidence for the long term effects of the learning gains that were reported to take place during the action research. As teachers conducted action research, they implemented a wide variety of new practices with students that addressed learning and behavior issues. These included the introduction of new grouping and scheduling patterns (e.g., looping, heterogeneous grouping, inclusion), multicultural literature and music, the use of computers in chemistry, music, foreign language, and physical education classes, student journals, writing workshop, integrated and thematic curriculum, service learning projects, and new assessment practices, A number of the projects have sought to develop better communication between parents and teachers, among resource teachers and between resource and classroom teachers. Many of the projects focused on issues of equity even though they were not placed in groups that were labeled as concerned with equity. For example, several projects in the technology groups have been concerned with issues of equity in the use of computers. Following are a few examples of the kind of improvements in student learning reported by many teachers.

- A sixth grade middle school teacher utilized manipulatives such as pattern blocks and number tiles in a unit on fractions. Students who had struggled in the past with fraction concepts, grasped the concepts by the end of the unit as measured by the unit test.

- A kindergarten teacher implemented a new collaborative writing program with the assistance of a Title 1 teacher and an educational assistant and reported that student attitudes toward writing and writing skills improved by the end of the year much greater than they had in previous years. Most students were now writing complete sentences as opposed to the past when only a few students would be writing some sentences by the end of the year, and not every day.

- Two fifth grade teachers in a team taught full inclusion classroom introduced a project based curriculum that provided meaningful and purposeful activities for their students (e.g., a food drive, garbage and recycling unit) and a vehicle for more authentic assessment of student development. They tracked the progress of three of their students and reported improvements in a variety of social and academic skills. Evidence for student progress was provided by analysis of student work samples, the observations of the two teachers recorded over time in notebooks, and feedback from the music teacher.

- A social worker, English teacher and the nurse in the district's alternative high school incorporated a service learning component into a required unit on the life of Malcolm X in an orientation class for all new students. They wanted to see if the addition of service learning could address the problem of students not passing the course because of failure to complete this assignment. They reported that the addition of the service learning project that involved the high school students teaching sixth graders about Malcolm X resulted in an increase in the proportion of students who completed the class and in more positive attitudes among students, many of whom had a history of frustration and academic failure in school.

5. Is there evidence of the influence of individual studies beyond the classrooms and other learning venues in which they were conducted including on school culture?

Although our analysis shows that most of the impact of the studies seems to be on those who conduct them and on their individual classrooms, we did find some evidence of an impact beyond the individual classroom. Examples of this broader impact include:

- In several schools where a number of staff have participated in the program, interviewees claim that there is more and better communication among the staff about substantive issues of teaching and learning. In one particular school where a number of teachers had been involved in the program, many of the studies done were distributed and discussed by the staff. One of these studies was concerned with the use of portfolios in the school and discussion about it caused a rethinking of how portfolios were being used throughout the school. In several studies, improved coordination and communication among support staff and between support staff and classroom teachers were reported to be a result of action research.

- Several studies conducted by resource teachers appeared to have an effect on policies used for referring children for special services. Two studies involving the referral of kids who were suspected of having ADD led to revised policies that led to fewer referrals. Another study led to a change in policy for referring ESL students. Several studies resulted in greater inclusion of students with special needs into the regular classroom and in a decrease in pull- out services.

- One study led to a major reorganization of the 6th grade social studies curriculum in a middle school to focus on fewer topics in more depth.

- One study led to a change from homogeneous to heterogeneous grouping in the teaching of 6th grade reading in a middle school.

- One study led to the modification of a house wide discipline policy in a middle school to address social class and race related inequities in the previous system.

Implications

Although this study has shown that there are many positive effects on teachers, their teaching, and on student learning as a result of conducting action research, one must be very cautious about using these results to advocate for teacher research as a professional development activity. This research has suggested particular conditions in action research that may be important in producing the desirable influences. While these conditions are consistent with those typically identified in the literature on professional development, they also include factors such as intellectual challenge, respect for teachers, and emotional support, that are not often mentioned in the literature. The next phase of this research with funding from NPEAT will further explore which of the conditions identified in this research are important by studying action research that has been organized in different ways. For example, is participation in an action research group, the provision of released time, the use of facilitators, the preparation and support of facilitators, the particular way of conducting action research groups in Madison (e.g., the use of a research question), etc. important to the realization of the outcomes found in the current study? Are there other ways of organizing and supporting action research that lead to similar outcomes? Also, although we read about and were told by many participants of the improvements in pupil attitudes, behavior, involvement, and learning that were associated with actions taken during the research in the short run, this link between conducting action research and pupil learning needs further study in terms of the long term effects on both teacher actions and pupil learning.

Products and Dissemination of Findings

Conference Presentations and other dissemination to date:

1. Ken Zeichner and Cathy Caro-Bruce conducted a session at the 1997 annual meeting of the American Association of Colleges for Teacher Education (February, Phoenix). At this session, we discussed both the program and the design of the research project. No preliminary findings were shared at this meeting.

2. A symposium on the program and this research project was held at the 1997 annual meeting of the American Educational Research Association (April). During this session two teachers and group facilitators, Barbara Brodhagen and Laura Mueller discussed the program and Ken Zeichner discussed preliminary findings of the research.

3. Cathy Caro-Bruce, Ken Zeichner, and Madge Klais, group facilitator, discussed the program and the findings from this research project on a one half hour cable TV show that has been aired several times on the district's local cable TV channel. (November, 1997)

4. Cathy Caro-Bruce conducted two workshops on action research at annual meetings of the National Staff Development Council that included a report of some of the findings from this project. (November, 1996 Vancouver; November, 1997 Nashville) She also conducted workshops on action research that included a report of some of the findings at the Institute on Cultural and Linguistic Diversity (Brown University, November, 1997, March, 1998) and at the University of Missouri-Kansas City (March, 1998) for a conference sponsored by a local school-university partnership.

5. Robin Marion conducted a session at the annual "Voices from the Classroom" conference sponsored by the Northern California teacher research community that included a report of the findings of our research.

6. The Action Research Network of Wisconsin newsletters have included regular reports of the findings of this study.

7. Proposals will be submitted this summer to AACTE and AERA to present all of the findings of this research at their 1999 annual meetings.

Products

1. Zeichner, K. (April, 1997) Action research as professional development in one urban school district. Paper presented at the annual meeting of AERA, Chicago.

2. Marion, R. (April, 1997) The action research journey: The nature of action research in one urban school district. Paper presented at the annual meeting of AERA, Chicago.

3. Marion, R. (May, 1998) When teachers examine their practice: Action research as a vehicle for teacher learning in one urban school district. Unpublished doctoral dissertation, University of Wisconsin-Madison.

4. Aspects of this research project have also been cited throughout Zeichner, K. & Noffke (in press) Practitioner research In V. Richardson (Ed.) Handbook of research on teaching- 4th edition. Washington, D.C. AERA.

5. Caro-Bruce, C. (In press) Action research facilitators handbook This resource book for the facilitation of school-based action research groups is based on the work in the MMSD program and will be published by the National Staff Development Council later this year.

6. We have had several discussions with publishers about an edited book that will include chapters describing the program, the findings from our Spencer-MacArthur funded study of the program, and examples of studies conducted in the program. Erlbaum has expressed much interest in publishing this book We hope to have a complete manuscript ready to send them by the end of this summer. Revised versions of both of the 1997 AERA papers listed above will become chapters in this book.

Continuation of this work

Ken Zeichner has received funding for a new four year study as part of the National Partnership for Excellence and Accountability in Teaching (NPEAT) funded by the U.S. Department of Education to expand the work completed in this project. In 1998 he will produce a comprehensive review of the research on teacher research as professional development In the following three years, he will conduct case studies to better understand the strengths and weaknesses associated with different conditions for organizing teacher research as a professional development activity. He will examine several additional examples of teacher research organized within a school district, a teacher research program organized by a regional educational laboratory, regional professional development consortium, teacher association, and by a university extension department. He is interested in understanding whether the particular key elements identified in the present research (e.g., group setting, facilitators, etc.) Are necessary for realizing the outcomes discovered in this study or, whether there are other conditions of organization and support that produce similar outcomes.

Getting Involved with Action Research
(electronically)

Action Research Collaborative of Greater St. Louis
http://info.csd.org/WWW/resources/arc/arcdata.html

This site brings together a collaborative of teachers, administrators, and teacher educators. ARC is developing a database of action research project descriptions.

American Education Research Association
http://coe2.tsuniv.edu/ar-sig/

This special interest group brings together teachers, administrators, researchers and community members in collaborative action research. It also has links to other action research sites.

Appalachia Educational Laboratory
http://www.ael.org/rel/schlserv/actlist.htm

Aelaction is a free, facilitated forum for sharing ideas related to action research. This network links the wisdom teachers bring to "net" discussions with current knowledge from research. To subscribe, send an email message to majordomo@ael.org. Leave the subject line blank. In body of message, type: subscribe aelaction <your email address> Do not include a signature.

ARLIST
http://www.scu.edu.au/schools/sawd/ari/arlist.html

ARLIST is an electronic mailing list where people discuss issues about theory and practice of action research. It is accessible to anyone connected to the internet. To sign on, send message "subscribe arlist" to arlist-request@psy.uq.oz.au

CARN
http://www.uea.ac.uk/menu/acad_depts/care/carn/welcome.html

The Collaborative Action Research Network publishes conference proceedings and papers; provides links to other sites, and offers publications.

Madison (WI) Metropolitan School District
http://www.madison.k12.wi.us/sod/index.htm

This website is part of the school district's home page and offers information about what is currently happening with action research in the school district. Included are abstracts of the more than 400 studies, information about the annual conference, and a report based on the findings of a two year grant on the impact of action research on teachers and students.

Midcontinent Regional Educational Laboratory
http://mcrel.org/connect/action.html

This site will give you links to journal abstracts, papers, listservs and other groups interested in action research.

National Staff Development Council
http://nsdc.org

This site provides information on NSDC membership, products, and annual conferences. Products and services include references to action research.

Queen's University
http://educ.queensu.ca/~ar/

This site, at Queen's University, Kingston, Ontario, Canada, was developed from a university course utilizing action research. It has since been expanded to include additional materials and descriptions of projects.

University of Colorado at Denver
http://www.cudenver.edu/~mryder/itc_data/act_res.html

This site describes many resources and articles, and provides links to other action research sites.

University of Toronto
http://www.oise.utoronto.ca/~ctd/networks/

An on-line journal for teacher researchers plus a discussion forum for topics of interest is available on this site.

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